City of Greater Sudbury 2001 Urban Soil Survey

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Acknoledgments

This document represents the largest sampling program ever undertaken by the Ontario Ministry of the Environment (MOE) for any community in Ontario, with approximately 770 properties sampled, 7,000 samples collected, and approximately 150,000 laboratory analyses completed. This document could not have been produced without the hard work and dedication of the many people outlined below.

The Sudbury Soils Study was co-ordinated by the Northern Region of the MOE. This team included Brian McMahon as the supervisor, as well as, Maxine Kasper, Ron Paolin, Kathy McDonald, Suzanne Arsenault, Brian Cameron and Nicole Catojo. Sample collection, data management and report preparation was completed by Phytotoxicology Unit scientists of the Environmental Monitoring and Reporting Branch (EMRB) of the MOE.

Our field crew worked tirelessly, under sometimes adverse conditions, to complete all of the sampling in just one field season (5 months). A big thank you to an amazing sampling crew including Aden Takar, Taskin Shirazi, Claire Hanlon, Tim Lanthier and lead investigators Laura Fiore and Randall Jones of EMRB and from the Northern Region, Cindy Mann, Maureen Spinney, Jonathon Roy, Marc Donato, Derek McDonald, Shelly Wainio, Shelley Baggio, investigator John Negusanti and all others on short term contracts.

Once samples were collected, they were sent to the EMRB - Phytotoxicology processing lab in Toronto. Thank you to Debbie Terry, Danuta Roszak, and Jennifer Newman, as well as Aden, Taskin, Claire and Tim for all your hard work. Due to the large volume of samples collected, a large portion of our soil samples were processed externally at Agat Laboratories in Toronto under the direction of Jackie Takeuchi. Once samples were processed, soil samples were submitted to Lakefield Research Laboratory for analysis under the direction of Teresa Switzer. All produce samples and some soil samples were analyzed internally by the MOE Laboratory Services Branch (LSB) under the direction of Rusty Moody. A special thank you must go to Rusty for also performing quality control verification on all Lakefield data. Thank you as well to Bill Tobin of LSB for his assistance in laboratory quality control.

Once all of the samples had been analyzed and reported, the writing process began. With so much data being moved and manipulated electronically, manual verification was necessary once all of the tables had been made. Thank you to Leilani Bhatty of Standards Development Branch (SDB) for accomplishing the majority of this daunting task. Thanks also to David Singh of LSB for assistance in technical editing and proof reading. Thank you to Barry Zajdlik of Zajdlik & Associates for providing statistical analysis of the soil and produce data base.

Preparation of this report was a group effort by all four authors: Randall Jones, Laura Fiore, Kyle Davis and Catherine Eby. This document was thoroughly reviewed by the Northern Region Sudbury Soils Team, George Crawford, Ian Smith, Dave McLaughlin, Dale Henry, Mary Ellen Starodub and Paul Welsh of SDB & EMRB, Sudbury Medical Officer of Health Dr. Penny Sutcliffe, Sudbury Technical Committe (TC), Sudbury Public Advisory Committee (PAC)and the SARA Consultants group.

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1.0, 2.0, 3.0

1.0 INTRODUCTION

The Ontario Ministry of the Environment (Ministry or MOE) report entitled *City of Greater Sudbury 2001 Urban Soil Survey* is a comprehensive discussion of all soil and produce data that was collected by the Ministry in the City of Greater Sudbury during the period of July to November of 2001. Individual appendices have been prepared with full descriptions and results for sampling of residential property soil and vegetable gardens, schools and daycares, municipal parks, market gardens, commercial berry producers, and wild blueberry patches. All data presented in this report will contribute to the human health and ecological risk assessments that are currently underway in the City of Greater Sudbury.

1.1 Objectives of Study

1) To provide a screening level assessment of metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury;

2) To determine if localized areas of higher metals and arsenic concentrations exist in the upper 20 centimetres of soil within the City of Greater Sudbury;

3) To determine if metal and arsenic concentrations change with depth in the upper 20 centimetres of soil, in order to identify if element concentrations are related to aerial deposition from smelter emissions in the City of Greater Sudbury;

4) To determine the strength of relationships between metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury in order to identify if element concentrations are related to smelter emissions;

5) To identify metal and arsenic concentrations in produce grown within the City of Greater Sudbury, in order to support exposure estimates for the human health risk assessment;

6) To identify additional work that may be appropriate to support the Human Health Risk Assessment (HHRA) and the Environmental Risk Assessment (ERA) based upon this screening level study.

2.0 SCOPE OF STUDY

The scope of this study was to obtain soil chemical data to fill data gaps remaining following the review of the Ontario Ministry of Environment report *Metals in Soil and Vegetation in the Sudbury Area (Survey 2000 and Additional Historic Data) - September 2001.* Based on this report, it was determined that additional sampling and further action was warranted with regards to Sudbury residential and publically- accessible urban green spaces and communities adjacent to the three smelting centres of Copper Cliff, Coniston, and Falconbridge.

The purpose of this extensive sampling program was to fill the knowledge gaps with screening level information. The scope of the sampling program was not to exhaustively characterize the soil metal status of all possible sample sites, rather it was to collect soil data that was representative of each sampled property. The need for further and more intensive sampling will be decided by the consultants carrying out the human health and ecological risk assessments in consultation with the

Ministry. The sampling program is described in more detail in Section 5.0.

The soil sampling conducted by the Ministry was not the only sampling that was conducted to characterize the contaminant status within the City of Greater Sudbury in 2001. Over the summer and fall of 2001, Inco Limited and Falconbridge Limited collected surface soil samples in remote areas around the Sudbury basin in an attempt to 1) confirm the local background concentrations for the contaminants of concern, and 2) accurately determine the spatial extent of the metal and arsenic deposition associated with the mining and smelting activities, having defined local background. Over the same time period, the companies also characterized the soil contaminant status of their land holdings in areas adjacent to residential communities.

The soil information obtained from the 2001 sampling program, in conjunction with the data from *Metals in Soil and Vegetation in the Sudbury Area (Survey 2000 and Additional Historic Data)* (MOE 2001) and the extensive existing Sudbury environmental data base, form the essential building blocks upon which an ecological and human health risk assessment for impacted communities in the City of Greater Sudbury will be developed.

3.0 BACKGROUND

3.1 Ontario Ministry of the Environment Investigations

Between the years 1938 and 2001, various Ontario government departments and agencies have conducted numerous investigations to document the impact of Inco and Falconbridge's emissions on vegetation and soil in and around the Sudbury Basin (Balsillie, *et al* 1978, Dreisinger 1970, McIlveen, *et al* 1979, McIlveen, *et al* 1984, ODM 1964, MOE 1973, MOE 1975, MOE 1978, MOE 1979, MOE 1984, MOE 1985, MOE 1990, MOE 2001). During the early years, these investigations were mainly concerned with sulphur dioxide injury to crops and native vegetation, in particular white pine. In the early 1970's, the Ministry established two long term studies in the Sudbury region to look at the impacts of emissions from the Inco and Falconbridge operations on native vegetation and soil chemistry. All of the sampling locations for these studies were established in undeveloped rural locations. In 1998 the number of sampling locations was expanded to better determine the extent of the impact of emissions on surface soil chemistry. While many of the new sampling locations were in the urban part of the City of Greater Sudbury, they were all on undeveloped land. There were other smaller investigations conducted in the Sudbury area by the Ministry over this time period, but there was not any systematic soil sampling of the developed urban areas in Sudbury.

The Ministry investigations concluded that emissions from over half a century of processing nickel ores had resulted in elevated levels of metals and arsenic in soil in various locations throughout the Sudbury area. Nickel, copper and cobalt concentrations in surface soil (0 - 5 cm depth) were elevated in rural areas adjacent to the companies and for a considerable distance downwind (east-northeasterly) of the smelting operations to levels which could or did cause injury to vegetation (phytotoxicity). The observed severe vegetation impacts, mainly caused by sulphur dioxide fumigations, generally affected farm crops and white pine east of Inco. The MOE 2001 report, in which the bulk of the two long term study results were reported, identified the lack of urban soil chemistry data for the Sudbury region and recommended that a systematic sampling program be carried out to properly characterize the urban soil in Sudbury.

4.0, 5.0

4.0 MOE SOIL GUIDELINES

Throughout this document the results of the soil chemical analysis are compared to the MOE *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) Table A and Table F soil criteria. A brief description of the Table A and F soil criteria is given below.

4.1 MOE Ontario Soil Background Criteria (Table F)

The numbers listed as being "Ontario Soil Background Criteria", or Table F, are derived from the MOE document *Ontario Typical Range (OTR) of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow* (MOE 1993c). The actual OTR_{98} values are the 98th percentile of the concentrations of various chemical parameters detected in background soil in Ontario. These chemical data were derived from a province-wide soil sampling program conducted to determine the range of background chemical concentrations in surface soil in Ontario resulting from natural geological processes and human activity but remote from the influence of known point sources of pollution. Soils were analyzed for approximately 39 inorganic and 119 organic parameters. Complete details on the OTR background development process can be found in the MOE report *Ontario Typical Range of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow* (MOE 1993c). The Table F background-based generic soil criteria in the *Guideline for Use at Contaminated Sites in Ontario* are derived from the OTR_{98} values. For most elements and chemicals, the Table F generic guideline is the OTR_{98} plus two Coefficients of Variation. The resulting Table F values tend to be higher than the OTR_{98} values, although there are exceptions. The exceptions occur when the generic effects-based Table A guideline is less than the OTR_{98} number, in which case both the Table A value and the Table F value are set at the OTR_{98} value. Details of the generic background-based Table F soil criteria development process can be found in the MOE report *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997).

Soil concentrations above the Table F background levels are likely indicative of the impact of a local pollution source. Although, in some cases Table F exceedences may be the result of local geological deposits.

4.2 MOE Soil Remediation Criteria (Table A)

The MOE soil remediation criteria have been developed to provide guidance in assessing and triggering certain decisions for soils that have elevated soil concentrations. These criteria are not action levels, in that exceeding one or more of the criteria does not automatically mean that a clean-up must be conducted, but that further study of the potential human and/or ecological risks is warranted.

Consideration of the following factors is required when the criteria are exceeded:

- a demonstrated presence or likelihood of an adverse effect to human health and/or the natural environment;
- an understanding of the type of protection provided by the criteria gained through knowledge of the exposure pathways and receptors (i.e. humans, animals, plants) which were considered in the development of the criteria, and a thorough understanding of how that combination of pathways and receptors relate to those which could be found in the community;

- local environmental conditions that are known to modify chemicals availability and toxicity; and

- an understanding of the relationship between dose and health response for sensitive receptors from all exposure pathways, including the safety and uncertainty factors that have been used in the development of the criteria.

In each case, the decision-making process should consider all of these factors plus any additional factors specific to the community in question. When the decision is made that action is needed, it is generally accepted that a human health and/or ecological risk assessment(s) are required to assess the level of risk to the community, identify the major contributing factors to risk, and, if warranted, develop intervention levels for remediation.

The soil remediation criteria are effects-based concentrations set to protect the most sensitive receptor against the potential for adverse effects to human health, ecological health, and/or the natural environment. The most sensitive receptor is often a plant or soil dwelling animal. The assumption is that by protecting the most sensitive receptor and the most sensitive endpoint that the rest of the environment will be protected. There are different criteria for land use, soil texture, soil depth, and groundwater use. The criteria have also been established so that there will not be a potential for adverse effects from chemicals transferred from soil to indoor air, from groundwater or surface water through release of volatile gases, from leaching of chemicals in soil to ground water, or from groundwater discharge to surface water.

Currently there are criteria for approximately 25 inorganic elements and 90 organic compounds. Criteria were developed only if there were sufficient, defendable, effects-based data on the potential to cause an adverse effect. The development of Soil Remediation Criteria is a continuous program and criteria for more elements and compounds will be developed as additional environmental data become available. Similarly, new information could result in future modifications to the existing criteria.

For more information, please refer to the MOE report *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997).

5.0 METHODS

This section has been organized into four sections: 5.1 Soil Sampling Methods; 5.2 Produce Sampling Methods; 5.3 Data Analysis Methods; and 5.4 Laboratory Processing and Analysis Methods

5.1 Soil Sampling Methods

In this document we define three main types of soil samples; Soil, Sand and Gravel.

The Soil sample type consisted of soil material (less than 2 millimetres (mm) in diameter), ranging in texture from sand to silty clays, on which grass, vegetables or berries were growing. This group was further subdivided into Urban Soil (developed, grassed areas), Urban Garden Soil (residential vegetable gardens), Agricultural Soil (commercial market garden and berry farms) and Undisturbed

Natural Soil (undeveloped, naturally vegetated areas).

The Sand sample type was subdivided into Play Sand and Beach Sand. Play Sand was the material used around play structures (i.e. swings, slides, etc.), in sand boxes, and in long jump pits found in schools, daycares, and parks. Generally, this material originated off-property and was brought in for landscaping purposes. Beach sand, on the other hand, tended to be naturally occurring and was collected from the parks that had beaches.

The Gravel sample type was subdivided into Crushed Stone and Playground Gravel. Crushed stone, usually limestone, was used extensively for baseball diamond infields. This was a white to grey material, generally no larger than 5 mm in diameter, and contained a large proportion of very fine material. Playground Gravel was used in a number of school playgrounds and consisted of stones approximately 10 - 12 mm in diameter underlaid by fine powder mixed with soil. In the case of playground gravel it was the fine powder mixed with soil that was sampled. Both crushed stone and playground gravel generally originated off-property and were brought in for landscaping purposes.

The sand and gravel sample types were collected in addition to the soil sample type as these materials were observed extensively throughout the City of Greater Sudbury at schools and parks and tended to be substantially different in physical structure than the adjacent urban soil. Sand and gravel, unlike grass covered urban soil, can come in direct contact with skin, thereby increasing the risk of exposure.

For all soil sample types, a hand-held soil corer was utilized to collect a minimum of fifteen soil cores along a grid, "W", or "X" pattern that was applied to a designated sampling area representative of the property. Refer to Appendices A, B and C. The size of each designated sampling area varied between sampling locations due to the variation in property size. Each soil core was divided into three depth intervals (0 - 5 cm, 5 - 10 cm and 10 - 20 cm) and the fifteen core sections for each of the three sample depths (e.g., 0 - 5 cm) were placed in one labelled polyethylene bag. The fifteen core sections per bag per designated sampling area are referred to as a composite soil sample. A duplicate soil sample was collected by performing the soil sampling procedure a second time across the same designated sampling area. It should be noted that the third depth interval (10 - 20 cm) was double the sample volume of the other two depth intervals. This should be taken into consideration when interpreting the data.

Generally, soil samples (soil, sand or gravel) were not collected within one metre of driveways, walkways, building structures, fences and/or debris to reduce the likelihood of encountering local sources of elevated concentrations (e.g., driveway spills, eroded paint from painted surfaces). Prior to sampling, authorization was obtained from all property owners and landscaping information was requested. Residential yards were discrete sampling areas usually separated by physical structures such as driveways, fences, and buildings, while school and park play areas were indicated by goal posts and/or other physical structures.

5.1.1 Residential Properties and Gardens

During the months of September and October of 2001, Ministry representatives collected soil from front and back yards of 51 properties in Falconbridge, 75 properties in Coniston, and 74 properties in Copper Cliff. Soil samples were also collected from front or back yards from 239 properties throughout the City of Greater Sudbury. A front and back yard were usually identified and sampled separately at each property while on some properties a side yard was also included. All samples were collected in duplicate and at three depths, 0-5 cm, 5- 10 cm., and 10 - 20 cm, where possible according to Ministry protocols (MOE 1993).

5.1.2 Schools and Daycares

During the month of July 2001, MOE representatives collected soil, play sand, crushed stone, and gravel samples from each school and daycare within the City of Greater Sudbury. At each site, samples were collected in duplicate from child play areas and especially from areas where school children could come in direct contact with bare soil. Samples were collected in different ways from different locations as described below. The sampling location and pattern of sampling is indicated on each school map attached in Appendix B. The school maps are provided to indicate the sampling locations on the property and may not be spatially accurate.

Gravel playgrounds, containing slag in some instances, were prevalent at schools within the older urban areas of the City of Greater Sudbury. Since this was the only area for school children to play, duplicate samples were collected from the gravel playground by pushing aside the larger stones and, with a trowel, scraping the underlying fine gravel material. All samples were collected while walking in an "X" pattern across the gravel playground. For this type of sampling, the purpose was to collect the fine particles that would be airborne when school children run and/or slide on the gravel.

Sand samples were collected from sanded play areas including those with play structures and sand boxes. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. In most cases, one sample was collected from the interior of the play area in an "X" pattern below the play structure, while the other sample was collected from the perimeter of the sanded play area adjacent to the pressure treated wood border and/or soil. This type of sampling should indicate if there is an effect from either the pressure treated wood border and/or surrounding soil to the interior of the play area. If there was no wooden border, both sand samples were collected from the interior of the sanded play area in an "X" pattern. In most cases, duplicate sand samples were collected; however, at some locations single sand samples were collected.

Soccer and football fields were sampled in duplicate with a hand held soil corer in an "X" pattern over the entire length of the field. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. In addition, duplicate samples were taken in any worn area where bare soil was visible; most predominately at soccer goal posts and centre field. Due to the compacted nature of these areas, surface soil samples were taken with a trowel to represent the 0-5 cm depth.

Baseball diamond infields were in most cases crushed stone and very compacted. Therefore, duplicate surface samples were taken with a trowel. In most cases, one surface sample was collected while walking along the baseline, while the other was collected while walking an "X" pattern from

home base to 2nd base and from 1st to 3rd base. This type of sampling should indicate if there is an effect of the chalk lines applied to the baseline compared to the interior of the infield.

Baseball diamond outfields were sampled in duplicate with soil corers in an "X" or "W" pattern. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. Where the infield was grassed, samples were collected with a soil corer either as a separate site or combined with the baseball diamond outfield.

Sand from long jump pit landing sites was sampled in duplicate in an "X" pattern. A hand trowel was used to sample the 0 - 15 cm layer due to the constant mixing of the sand in this location.

Samples were also taken from any grassed greenspace area where school children would play. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible.

Outdoor ice rinks were not sampled based on the premise that they would only be used when the soil was covered by ice. The remaining paved areas were not sampled.

5.1.3 Parks and Sports Complexes

During the months of September and October 2001, MOE representatives collected soil, and sand samples from major parks and sports complexes within the City of Greater Sudbury. At each site samples were collected in duplicate from play areas and especially from areas where young children could come in direct contact with bare soil. Samples were collected in different ways from different locations as described below. The sampling location and pattern of sampling is indicated on each park map in Appendix C, Section C4.

Sand samples were collected from beneath play structures and/or beach areas. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels or corers to represent the 0-15 cm depth. Duplicate samples were collected in a reproducible and representative manner of the sanded areas (i.e. "X" pattern)

Soccer and football fields were sampled in duplicate with a soil corer in an "X" pattern of the entire length of the field. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. In addition, duplicate samples were taken in any worn area; most predominately at soccer goal posts and centre field. Due to the compacted nature of these areas, surface soil samples were taken with a trowel.

Baseball diamond infields were in most cases crushed stone and very compacted. Therefore, duplicate surface samples were taken with a trowel or corer while walking along the baseline. Baseball diamond outfields were sampled in duplicate with soil corers in an "X" or "M" pattern. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. Where the infield was grassed, samples were collected with a soil corer either as a separate site or combined with the baseball diamond outfield.

Samples were also taken from any grassed area where school children would play. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible.

Outdoor ice rinks were not sampled based on the premise that they would only be used when the soil

was covered in ice. The remaining paved areas were not sampled.

5.2 Produce Sampling Methods

Produce sampling was conducted by Ministry staff from residential gardens, commercial market gardens, commercial berry farms and wild blueberry patches within the City of Greater Sudbury for preliminary screening purposes only. Sample types collected included root vegetables, fruit vegetables, leafy vegetables and berries. Duplicate samples were collected where available. All produce samples were kept on ice during transportation and shipping.

Interpretation of the produce results was based on comparisons with data from the following control locations: 2 control locations for raspberries, 1 control location for strawberries and blueberries, and 1 market garden control station. No control locations were available for residential gardens. Control sites were chosen based on current knowledge of the range and extent of elevated soil metal levels in the Sudbury area and were located approximately 125 km and 245 km west and 70 km northwest of the Copper Cliff superstack.

5.2.1 Residential Gardens

During the period of August and September of 2001, garden produce and soil samples were collected at a subset of the residential properties sampled in five of the local communities. Nine gardens were sampled in Falconbridge, 15 gardens in Coniston, 9 gardens in Copper Cliff, and 3 gardens each in Gatchell and Lively. Due to the small size of the residential gardens, only single samples of each vegetable were collected. Garden soil samples were collected in duplicate as a 0-15 cm core to represent the homogenous nature of the cultivated area.

5.2.2 Market Gardens, Commercial Berry, and Wild Blueberry Sampling

During the period of July and August of 2001, soil and produce samples were collected from 7 commercial berry farms, 3 wild blueberry patches, and 6 commercial market garden produce growers within the City of Greater Sudbury. At each site produce was collected in duplicate if enough produce was available and soil was collected from the vicinity in which the produce was grown. Soil was sampled in duplicate and since these areas are cultivated on a regular basis, soil cores of 0 - 15 cm were taken (MOE 1993). In areas with shallow bedrock, soil samples of 0 - 10 cm were taken. It should be noted that most berry samples, especially strawberries and raspberries, were collected late in the season and were therefore extremely ripe. In order to collect samples large enough for duplicate analysis it was necessary to sample from large areas of the farms, some of which had closed for the season.

5.3 Data Analysis Methods

Data analysis within this document was accomplished using various statistical methods including descriptive statistics, exceedences of applicable Ministry guidelines, spatial distribution of chemical concentrations, concentration depth profiles, and statistical correlations between elements. Chemical concentrations that were below analytical method detection limits (MDL) were tabulated as one half of the MDL for data analysis.

Descriptive statistics were generated to summarize the data and included: minimum, maximum,

mean, median, geometric mean, 10^{th} and 95^{th} percentiles, quartile concentrations, standard deviation, coefficient of variation, kurtosis, skewness, and upper and lower confidence intervals for the mean. Each data set included replicate sample results from each sampling location. The replicate sample results were not averaged for this analysis.

Percentiles were calculated by sorting the data from the highest to lowest concentration and then calculating the value of which x% of the data was below. For example, the median is the 50^{th} percentile and therefore, half of the data would fall below the median value. The quartiles are the 25^{th}, 50^{th} and 75^{th} percentiles. These values divide the data set into four equal sections. A mean or arithmetic mean is the arithmetic average of the non-transformed data set. The geometric mean is the back-transformed mean of the logarithmically transformed data set. This means that after the data set is logarithmically transformed, the mean of the log transformed data is calculated and then this mean is transformed back into the original scale. Generally, the geometric mean is less then the arithmetic mean.

Standard deviation is a measurement of the spread or variation in the data set. The more widely spread the data set, the larger the standard deviation. Coefficient of variation measures the spread of a data set as a proportion of the mean. It is defined as the standard deviation divided by the mean and is expressed as a percentage. Upper and lower confidence limits for the mean provide a range of values, with an associated level of probability, within which the actual population mean will be located.

Skewness and kurtosis are two measures of the deviation of the data distribution from normality. Skewness measures the symmetry of the distribution. The data distribution is said to be skewed when one tail of the curve is extended farther than the other. A skewness value of 0 indicates the data distribution is symmetrical and therefore normal while a skewness value different from 0 indicates that the distribution is asymmetrical and therefore non-normal. Kurtosis measures the "peakedness" or height of a data distribution curve. A kurtosis value for a normal distribution is 0 and if the kurtosis value deviates from 0, then the distribution is either more flat or more peaked than a normal distribution.

Concentrations for each community grouping were compared to the MOE Table F and A guidelines. Exceedences of these guidelines were highlighted and discussed. Each data set included replicate sample results from each sampling location. The replicate sample results were not averaged for this analysis. As discussed in Section 4.1, the Table F guidelines represent background soil concentrations obtained from a MOE province-wide parkland sampling program. As discussed in Section 4.2, the Table A soil guidelines are effects-based and were derived to protect both human health and the natural environment, whichever is potentially affected at the lowest concentration.

Spatial distribution of chemical concentrations in the urban soil data was assessed using concentration dot maps. The concentration dot maps include urban soil sampling locations only. All sample locations were rounded to the nearest 100 metres. The dots represent replicate soil sample results from each sampling location, and were not averaged. A dot represents a range of concentrations, with the dot size increasing as chemical concentrations increase. Dot colours were used to help differentiate between dot size. The MOE Table F and A concentrations were used as the upper limit of concentration ranges where possible in the concentration dot maps. Other concentration ranges were selected to help illustrate trends in the spatial distribution of chemical concentrations. Station location maps were also created and include all sand, gravel and soil (urban,

urban garden, agricultural and undisturbed natural soil) sampling locations.

Depth profiles were created to illustrate the change in chemical concentrations for each element between different depth intervals. With aerial deposition of metals and arsenic onto soil there is a pattern of decreasing concentration with increasing soil depth. Elements will migrate to lower depths at varying rates, depending on several factors including element chemistry and form, soil characteristics, climate, and period of exposure. Urban soil samples were collected at three depth intervals, 0 - 5 cm, 5 - 10 cm and 10 - 20 cm, where possible. For analysis purposes, the sample replicates at each sampling location were averaged at each depth for all elements. It should be noted that the third depth interval (10 - 20 cm) was double the sample volume of the other two depth intervals. This should be taken into consideration when interpreting the data.

A trend of decreasing concentration with increasing depth, typical of aerial deposition, was observed in communities in the City of Greater Sudbury, however, two other trends were also present. The second trend observed was maximum concentrations occurring at 5 - 10 cm, with lower concentrations at 0 - 5 cm and 10 - 20 cm. The third trend observed was increasing concentration with increasing depth. In both of these trends, elevated concentrations may be attributed to aerial deposition which has been buried by landscaping practices at individual properties. Landscaping practices may have included adding, grading, removing and/or mixing of urban soils. For discussion purposes, these three trends were labelled Group A through C. Sample locations in Group A exhibited a trend of decreasing concentrations with increasing soil depth, typical of aerial deposition. In Group B, maximum concentrations were observed at 5 - 10 cm while lower concentrations were observed at both 0 - 5 cm and 10 - 20 cm. In Group C, concentrations increased with increasing soil depth, and maximum concentrations were observed at 10 - 20 cm, the maximum depth of investigation.

The depth data was differentiated into Groups A, B and C within each community grouping using the following equations:

$$CriteriaA = Max\left(\frac{[Ni]_{5to10} \times (\log[Ni]_{0to5} - \log[Ni]_{5to10})}{[Ni]_{0to5}}, \frac{[Ni]_{10to20} \times (\log[Ni]_{0to5} - \log[Ni]_{10to20})}{[Ni]_{0to5}}\right)$$

$$CriteriaB = \frac{[Ni]_{5to10} \times (\log[Ni]_{0to5} - \log[Ni]_{5to10})}{[Ni]_{0to5}} - \frac{[Ni]_{10to20} \times (\log[Ni]_{0to5} - \log[Ni]_{10to20})}{[Ni]_{0to5}}$$

The procedure used to separate the three groups of data was based on the ratios and differences of nickel concentrations at each sampling location between depths. *Criteria A* was calculated for each sampling location and the sampling locations were ranked from lowest to highest based on *Criteria A*. All locations with a *Criteria A* value less than or equal to zero made up group A. *Criteria B* was calculated for the remaining locations and the sampling locations were ranked from lowest to highest based on *Criteria B*. All locations with a *Criteria B* value less than or equal to zero made up group B and the remainder made up Group C.

For each community grouping the data was first divided into Groups A, B, and C as described above.

The data for each group was then ranked from lowest to highest based on the nickel concentration at 0 - 5 cm for Group A, 5 - 10 cm for Group B and 10 - 20 cm for Group C. The ranked data was finally divided into sections (quarters, thirds or halves), depending on the sample size. This ranking was completed to differentiate between the strengths of trends within the Group A, B or C data. Typically, the highest concentrations of the data displayed the strongest respective trend (i.e. Group A, B or C) while the lowest concentrations of the data displayed the weakest respective trend. For graphing purposes, concentrations of each quarter, third or half were averaged and graphed at each depth interval for twelve elements.

Correlations between 20 elements in urban soil were analyzed using Pearson's and Spearman's Correlations, and scatter plots with linear regression lines were generated. Each data set included replicate sample results from each sampling location. The replicate sample results from each sampling location were not averaged for this analysis. The majority of the data is not normally distributed. As a result, the scatter plots are presented as non-transformed and log transformed. The non-transformed scatter plots are presented for simplicity, while the transformed plots are more statistically correct.

The Pearson's Product Moment Correlation Coefficient R measures the strength of the linear correlation between two elements. It assumes both variables are normally distributed and their joint distribution is bivariate normal. The Spearman's Ranked Correlation R_s is the non-parametric counterpart of Pearson's and measures the relationship of the ranks of the data. Spearman's does not assume that the distributions are normal. The differences between Pearson's R and Spearman's R_s are an indication of outliers or a highly skewed, non-normal distribution in the data. For the correlation analyses the non-transformed data was used. Due to the large sample size, R values for the correlations above 0.3 were statistically significant. For discussion purposes, R values greater than or equal to 0.75 were used for defining a strong significant correlation while R values less than 0.75 but greater than or equal to 0.7 were used for defining a moderate significant correlation.

Box and whisker plots describing analyte concentrations, for fifteen of the twenty analytes, by community group were discussed. As box and whisker plots may not be familiar to all readers a brief description is provided below.

A box and whisker plot simultaneously displays the central tendency of a data set (median), the degree of asymmetry (the relative sizes of the "boxes" around the median), and can indicate whether outliers are present in the data set. When box and whisker plots are placed side-by-side, the equality of medians and homogeneity of variance may also be visually assessed.

In the box and whisker graphics, the thin black line corresponds to the median and the thick red line corresponds to the mean. The two outer lines delineating the box represent the 25th and 75th percentiles of the sample. The lines or "whiskers" extend upward and downward from the box by 1.5 times the inter-quartile range. Observations beyond these points are plotted individually and may be considered as outliers

5.4 Laboratory Processing and Analytical Methods

Due to the large volume of samples collected, samples were processed and analyzed by both MOE and contract laboratories. However, overall data management and quality control for both sample processing and metals analysis was overseen and co-ordinated by MOE staff.

5.4.1 Soil Processing and Analytical Methods

Soil samples were delivered to the MOE Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for processing. Agat followed MOE Standard Operating Procedures which include air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample using a mortar and pestle to pass though a Number 45 mesh (0.355 mm) sieve (MOE 2000). Finally, the ground material was stored in glass jars. Trace amounts of non-soil material (i.e. grass, roots etc.) observed in the soil samples was removed during the sieving process.

Lakefield Research Laboratories (Lakefield) was selected and funded by local Sudbury industries (ie. Inco & Falconbridge) to analyze all Sudbury soil samples. Lakefield conducted analysis for the following elements: aluminum (Al), antimony (Sb), arsenic(As), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). One in ten samples were also analyzed for pH, electrical conductivity (EC) and total organic content (TOC).

At Lakefield, all samples were prepared prior to analysis by Lakefield Method 9-2-37 and analyzed using quantitative analysis by Inductively Coupled Plasma- Optical Emissions Spectrometry (ICP-OES) (Method 9-4-2) or by hydride generation and Atomic Absorption Spectroscopy (AAS) (Method 9-8-1). Depending on sample characteristics, Lakefield Method 9-25-4, Determination of Multi Elements in Low Mineralized Samples by Aqua Regia - Microwave Digest by Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS), was also used for the determination of various elements in low mineralized samples. MOE data management and quality control procedures for both soil sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

At the end of the study, a comparison of twenty (20) high metal concentration samples uncovered a bias between MOE Laboratory Services Branch data and Lakefield data with respect to arsenic and cobalt. MOE results were approximately 20% higher than Lakefield's. The arsenic differences were not seen in the pre-project inter-comparison since most of the samples analysed in ths early inter-comparison had relatively low concentrations.

MOE took many steps to quantify the laboratory differences, with full co-operation from Lakefield Research. Following sample re-analysis using EPA methods, comparison of results with certified reference material and regression analysis of the data, it was concluded that for any health risk assessments, arsenic results provided by Lakefield Research should be corrected upwards by 10% to bring their results more in line with accepted values for certified reference materials. Cobalt results provided by Lakefield Research have been accepted as will all other results. More detailed information is available in Appendix F.

Laboratory analytical method detection limits for soil, used by Lakefield, are presented in Table 5.4.1.1.

Table 5.4.1.1: Lakefield Research Limited Soil Method Detection Limits (MDL*)

Element	MDL	Element	MDL	Element	MDL	Element	MDL
Al	2.5	Cd	0.8	Fe	5	Ni	1
Sb	0.8	Ca	10	Pb	1	Se	1
As	5	Cr	5	Mg	1	Sr	10
Ba	0.5	Co	1	Mn	2	V	2
Be	0.5	Cu	1	Mo	1.5	Zn	2.5

* - MDLs are all in µg/g

5.4.2 Produce Processing and Analytical Methods

Produce samples were delivered to the MOE Phytotoxicology laboratory for processing (MOE 2000b). The protocol for vegetation processing includes washing the produce with tap water as would be done in the home prior to consumption. All produce samples were treated in this fashion with the exception of the berries. Berry samples could not be washed due to their over ripeness (i.e. some had become almost liquified during shipping). Instead, the berry samples were poured into beakers, were oven dried, and ground in a Wiley™ mill. The chopped washed vegetables were oven dried and ground in the same fashion. The ground material was then stored in glass jars until submitted for analysis.

All produce samples were forwarded to Laboratory Services Branch, MOE, for chemical analysis including: aluminum (Al), antimony (Sb), arsenic(As), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). In addition, the vegetation analytical suite included sulphur (S), boron (B), chlorine (Cl), and potassium (K).

All produce samples were analyzed using quantitative analysis by Inductively Coupled Plasma-Optical Emissions Spectrometry (Method MET3065) or by Hydride Generation Flameless Atomic Absorption Spectrophotometry (Method HYD3245). MOE data management and quality control procedures for both produce sample processing and metals analysis is outlined in Appendix G.

Laboratory analytical method detection limits for produce, used by the MOE, are presented in Table 5.4.2.1.

Table 5.4.2.1: MOE Laboratory Produce Method Detection Limits (MDL*)

Element	MDL	Element	MDL	Element	MDL	Element	MDL
Al	5	Cd	0.1	Pb	0.5	Sr	0.5
Sb	0.2	Ca	50	Mg	20	V	0.5
As	0.2	Cr	0.5	Mn	0.5	Zn	1
Ba	0.5	Co	0.2	Mo	0.2		
Be	0.2	Cu	0.5	Ni	0.5		
Bo	1	Fe	5	Se	0.2		

* - MDLs are all in µg/g

6.0

6.0 RESULTS

To determine the extent and concentration of soil metal and arsenic contamination in the City of Greater Sudbury, Ministry representatives collected soil samples from four land uses: residential, schools, parks and agricultural. In total, 6,734 soil samples were collected from 770 properties in the City of Greater Sudbury including: 16 commercial agriculture properties, 139 schools/daycares (104/35 respectively), 169 parks and 439 residential properties. Additionally, 245 produce samples were collected from 52 residential gardens and agricultural operations. Landscaping information was received from some property owners, however, this information was limited and unsubstantiated and was therefore not used for data interpretation.

6.1 Residential Data

All of the results for residential yard and garden sampling are presented in Appendix A. This appendix consists of four Sections. The first deals with sampling and analysis methods. Section 2 is the summary data organized by communities and consists of the number of exceedences of Table F and A and descriptive summary statistics. The communities are Coniston, Copper Cliff, Falconbridge, Sudbury Core and Inner Sudbury. Section 3 consists of the actual residential yard soil, garden soil and garden vegetable results. It consists of seven tables. The first five are the residential yard results organized by the same communities as in Section 2. Table 6 is the garden vegetable results and Table 7 is the garden soil results. All results for soil and vegetables are expressed in µg/g dry weight. Section 4 is the coordinates of the residential sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM) which have been rounded off to the nearest 100 metres.

6.2 School and Daycare Data

All of the school and daycare sampling results are presented in Appendix B. This appendix consists of five Sections. The first deals with sampling and analysis methods. Section 2 consists of individual school results, descriptions and maps organized by school board. Section 3 is the summary data organized by the four School Boards and consists of the number of exceedences of Table F and A and descriptive summary statistics. Section 4 consists of the actual school and daycare soil results. It consists of two tables. The Table 4.1 are the school soil results organized alphabetically by school name. Table 4.2 are the daycare soil results organized alphabetically. All results are expressed in µg/g dry weight. Section 5 is the coordinates of the school and daycare sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM).

6.3 Park Data

All of the park sampling results are presented in Appendix C. This appendix consists of six Sections. The first deals with sampling and analysis methods. Section 2 is the summary data organized by communities and consists of the number of exceedences of Table F and A and descriptive summary statistics. In Section 3, the results of three individual parks are discussed in the same manner as individual schools were discussed in Appendix B, Section 2. Section 4 consists of the actual park soil results organized by local community name. There are 24 tables, one for each local community, and the parks are listed alphabetically by name within each table. Some parks did not have proper names, in which case the name of street or intersection on which it was located was used. All results are expressed in µg/g dry weight. Sketch maps of each park showing the sampling locations are

located in Section 5. Section 6 is the coordinates of the park sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM).

6.4 Commercial Produce and Wild Blueberry Soil and Vegetation Sampling Results

All of the results for market garden, berry producers and wild blueberry sampling are presented in Appendix D. This appendix consists of four Sections. The first deals with sampling and analysis methods. Section 2 is the summary data and consists of the number of exceedences of Table F and A and descriptive summary statistics. Section 3 consists of the actual soil, vegetable and berry results. It consists of three tables. The first is the soil results . The second table is the market garden vegetable results and the third is the berry results. All results for soil and vegetables are expressed in μg/g dry weight. Section 4 is the coordinates of the residential sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM) which have been rounded off to the nearest 100 metres.

6.5 pH, Electrical Conductivity and Total Organic Carbon

In addition to the twenty inorganic chemical analyses conducted on each soil sample, one in ten soil samples were analyzed for pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC). Samples with sample numbers ending in "0" were selected to have these additional analysis carried out on them. In the initial sample submission to Lakefield, the laboratory mistakenly performed the three additional tests on all samples. This resulted in the quota for these analyses being used up before all samples had been analyzed. As a result only a portion of the Park soil samples were analyzed for pH, EC and TOC as the parks were sampled last. In total, 545 EC and pH analyses and 584 TOC analyses were completed. The results for the soil pH, Electrical Conductivity and Total Organic Carbon are given in Appendix E.

7.0

7.0 DISCUSSION

This section summarizes and provides limited interpretation of metal and arsenic concentrations measured in soil and produce collected in the City of Greater Sudbury in 2001. This is accomplished by summarizing and discussing trends and relationships in the metal and arsenic concentrations measured in soil and produce samples according to sample types and community / geographic locations. This discussion is not a thorough scientific or statistical analysis of this data nor does this discussion address potential ecological or human health effects of the observed metal and arsenic concentrations.

It should be noted that beryllium (Be) soil results were generally excluded from the descriptive statistics, spatial distribution, concentration depth profiles and statistical correlation analyses. This was because only ten samples in the data set had Be concentrations above the method detection limit of 0.5 μg/g. Concentrations ranged from 0.51 to 0.62 μg/g. Fifty-four additional samples had Be soil concentrations at the method detection limit of 0.5 μg/g while the Be soil concentrations for the remaining samples were below the analytical method detection limit.

During the 2001 sampling program, sample locations were organized by twenty four local communities or geographic groupings within the City of Greater Sudbury. The local communities included: Azilda, Blezard Valley, Capreol, Chelmsford, Coniston, Copper Cliff, Dowling, Falconbridge, Garson, Hanmer, Levack, Lively, Naughton, Onaping Falls, Skead, Val Caron, Val Therese, Wahnapitae, Wanup and Whitefish while the geographic groupings included Sudbury Core, Sudbury East, Sudbury South and Sudbury New. The geographic groupings were created by MOE staff for the purposes of organizing the 2001 sampling program data. The local communities are urban areas that were amalgamated with Sudbury to create the City of Greater Sudbury in 2001. For discussion purposes, these local communities and geographic groupings were ranked from highest to lowest using the 95th percentile nickel concentrations at the 0 - 5 cm soil depth. Six major groupings of communities were identified based on similar 10th, median and 95th percentiles of the nickel, copper, cobalt, arsenic, selenium, lead, cadmium, chromium, iron, zinc, and barium concentrations. The six community groupings were Outer Sudbury Communities, Inner Sudbury Communities, Sudbury Core, Coniston, Falconbridge and Copper Cliff.

The Outer Sudbury Communities grouping consisted of fourteen local communities including Blezard Valley, Capreol, Chelmsford, Dowling, Hanmer, Levack, Naughton, Onaping Falls, Skead, Val Caron, Val Therese, Wahnapitae, Wanup and Whitefish.

The Inner Sudbury Communities grouping consisted of three local communities and three geographic groupings including Azilda, Garson, Lively, Sudbury East, Sudbury New and Sudbury South. Sudbury East is defined as north of Ramsey Lake, east of Paris St. and south of the Kingsway and included the neighbourhoods of Minnow Lake, Adamsdale, and Moonlight Beach. Sudbury New is defined as north of the Kingsway, east of Notre Dame and included the neighbourhoods of Barry Downe, New Sudbury, Nickeldale and San Francisco. Sudbury South is defined as south of Ramsey Lake, south of Lorne and York Streets and included the neighbourhoods of Robinson, Lockerby, Laurentian, and Lo-Ellen.

The Sudbury Core community grouping is defined as being west of Notre Dame and north of Lorne and York Streets and included the neighbourhoods of Flour Mill, Gatchell, Little Britain and Northern Heights. The local communities of Coniston, Copper Cliff and Falconbridge made up their

own individual community groupings. Figure 7.0.1 shows the locations of the local communities / geographic groupings and the community groupings. Table 7.0.1 and Table 7.0.2 show the 10th, median and 95th percentile data for each local community and geographic grouping and each community grouping for eleven elements. Each community grouping is identified by a separate colour in these tables. Recall that communities are ranked lowest to highest using the 95th percentile nickel concentrations. Section 10.1 depicts the soil sampling station maps for each community grouping, divided by land use.

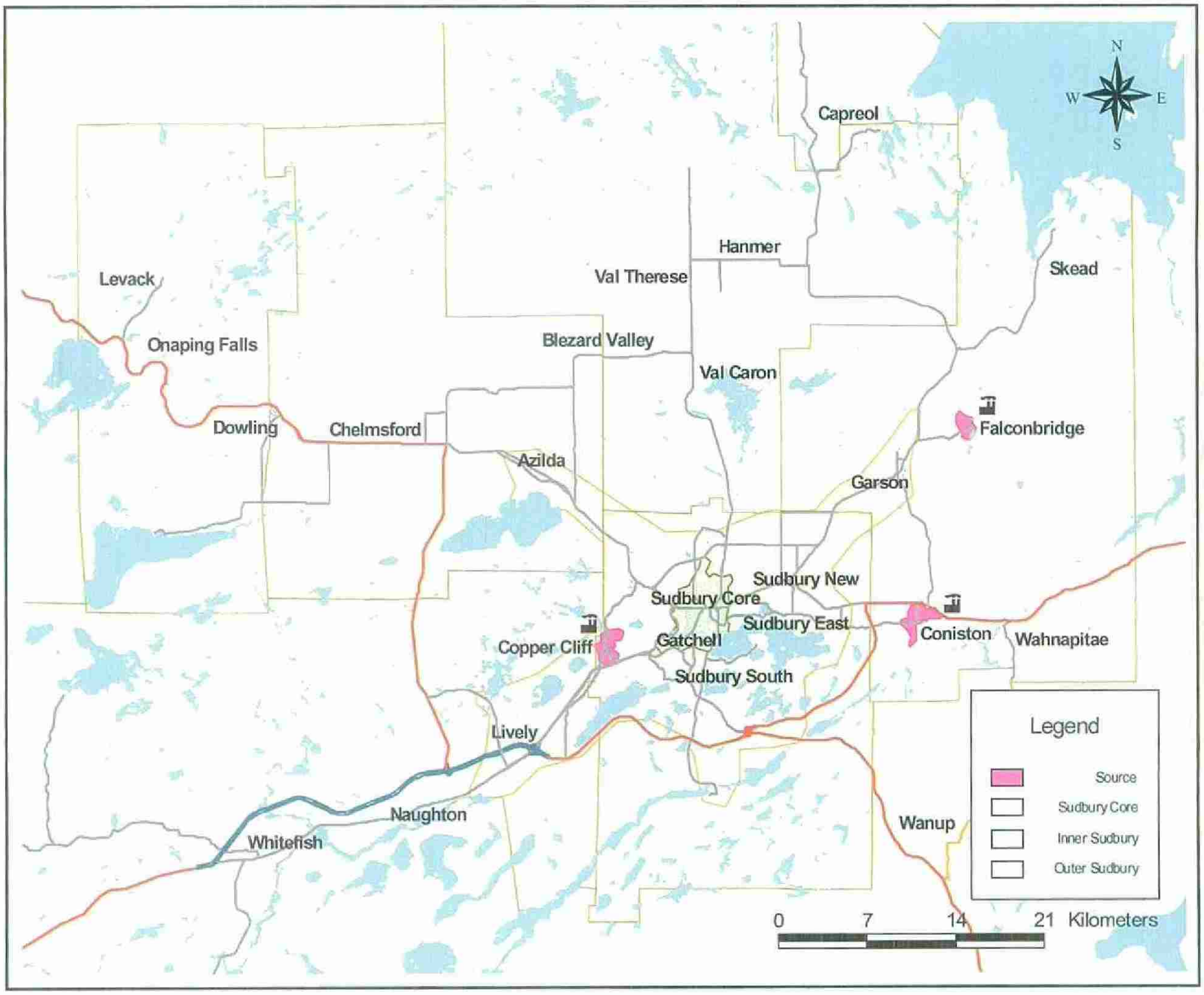

Figure 7.0.1 : Sudbury Community Groupings

Table 7.0.1: Summary and Ranking of the Concentrations of 11 Elements in the 0 - 5 cm Layer of Urban Surface Soils in the City of Greater Sudbury By Community.

Community	n	Ni			Cu			Co			As			Se			Pb		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Onaping Falls	6	22	25	31	15	16	30	4	5	7	2.5	2.5	2.5	0.5	0.5	0.5	6	8	25
Dowling	36	36	42	49	24	26	34	5	7	12	2.5	2.5	2.5	0.5	0.5	0.5	12	14	41
Wahnapitae	11	39	48	54	25	34	43	9	9	11	2.5	2.5	4	0.5	0.5	1.0	6	11	14
Skead	10	26	45	58	15	35	56	4	5	8	2.5	2.5	6	0.5	0.5	0.6	6	10	36
Val Therese	16	33	46	59	22	35	51	4	5	8	2.5	2.5	6	0.5	0.5	0.5	7	10	14
Wanup	26	34	59	67	31	53	57	5	6	10	2.5	2.5	4	0.5	0.5	0.9	4	12	13
Hanmer	54	34	42	68	21	33	57	4	5	10	2.5	2.5	6	0.5	0.5	0.6	7	11	52
Naughton	6	36	53	72	27	36	52	5	6	7	2.5	2.5	2.5	0.5	0.5	0.5	6	10	27
Levack	32	34	42	73	22	34	47	5	7	9	2.5	2.5	4	0.5	0.5	0.8	10	13	19
Whitefish	40	31	52	76	24	42	58	5	11	15	3	3	14	0.5	0.5	0.5	10	14	34
Capreol	19	36	50	83	23	35	73	4	5	8	2.5	2.5	16	0.5	0.5	1.0	9	14	46
Chelmsford	12	32	47	88	19	28	47	4	6	16	2.5	2.5	7	0.5	0.5	0.5	8	11	23
Blezard Valley	7	51	77	88	41	51	63	4	5	6	2.5	2.5	6	0.5	0.5	0.5	12	14	16
Val Caron	10	38	51	111	27	40	77	4	5	10	2.5	2.5	5	0.5	0.5	1.0	8	11	25
Azilda	156	47	80	160	35	55	130	5	7	12	2.5	2.5	15	0.5	0.5	1.0	9	13	29
Sudbury (New)	74	56	90	194	39	74	160	6	8	14	2.5	2.5	9	0.5	0.5	1.0	9	16	40
Sudbury (East)	62	53	93	209	39	74	190	6	8	14	2.5	5	16	0.5	0.5	1.0	10	17	51
Garson	104	36	76	219	26	65	171	5	7	12	2.5	6	12	0.5	0.5	1.0	6	16	46
Lively	187	51	86	269	38	67	190	6	8	15	2.5	5	11	0.5	0.5	1.0	8	13	50
Sudbury (South)	92	41	75	318	27	63	340	5	7	15	2.5	2.5	8	0.5	0.5	1.2	6	12	120
Sudbury (Core)	324	69	200	909	56	190	829	6	12	35	2.5	6	20	0.5	1.0	4.0	9	30	140
Coniston	301	58	200	1200	49	150	800	6	12	45	2.5	7	33	0.5	0.5	3.0	12	32	150
Falconbridge	219	120	820	2110	71	780	1900	11	49	111	9	49	181	0.5	2.0	6.0	14	65	200
Copper Cliff	290	299	840	2455	360	1200	3300	12	27	79	6	14	45	2	6	16	25	69	220

Communities ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

Table 7.0.2: Sudbury Communities as Grouped by Increasing Nickel Concentrations

Community	n	Ni			Cu			Co			As			Se			Pb		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Outer Sudbury	284	32	48	79	21	35	59	4	5	12	3	3	7	0.5	0.5	1.0	7	11	35
Inner Sudbury	675	16	84	250	11	67	183	3	7	14	3	3	11	0.5	0.5	1.0	2	14	49
Sudbury (Core)	324	69	200	909	56	190	829	6	12	35	2.5	6	20	0.5	1.0	4.0	9	30	140
Coniston	301	58	200	1200	49	150	800	6	12	45	2.5	7	33	0.5	0.5	3.0	12	32	150
Falconbridge	219	120	820	2110	71	780	1900	11	49	111	9	49	181	0.5	2.0	6.0	14	65	200
Copper Cliff	290	299	840	2455	360	1200	3300	12	27	79	6	14	45	2.0	6.0	16.0	25	69	220

Groups ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

Table 7.0.1: Summary and Ranking of the Concentrations of 11 Elements in the 0 - 5 cm Layer of Urban Surface Soils in the City of Greater Sudbury By Community (cont'd).

Community	n	Cd			Cr			Fe			Zn			Ba		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Onaping Falls	6	0.4	0.4	0.4	26	30	32	11500	12500	14750	22	31	37	25	30	41
Dowling	36	0.4	0.4	3.2	24	43	53	13000	17000	20000	30	37	56	35	54	72
Wahnapitae	11	0.4	0.4	0.4	30	39	41	15500	18000	19000	25	33	35	35	45	50
Skead	10	0.4	0.4	0.4	21	24	42	11000	12500	16000	16	26	46	24	38	69
Val Therese	16	0.4	0.4	0.4	25	28	32	12000	13000	14750	18	23	34	27	33	40
Wanup	26	0.4	0.4	0.7	22	25	33	10560	13000	16000	22	24	33	29	33	49
Hanmer	54	0.4	0.4	0.4	24	26	38	11000	12000	17000	19	25	45	24	32	43
Naughton	6	0.4	0.4	0.4	19	25	33	10000	12000	14900	16	25	37	28	36	45
Levack	32	0.4	0.4	0.4	31	34	42	12000	15000	17100	26	37	54	32	45	56
Whitefish	40	0.4	0.4	0.4	23	38	64	13400	20000	28100	25	56	76	31	74	141
Capreol	19	0.4	0.4	0.6	23	26	36	11000	13000	16450	19	29	56	23	34	49
Chelmsford	12	0.4	0.4	0.4	21	27	38	10300	13000	17350	20	29	42	24	34	47
Blezard Valley	7	0.4	0.4	0.4	23	24	29	9960	11000	13000	22	26	31	28	31	40
Val Caron	10	0.4	0.4	0.4	23	27	57	10900	12000	20000	19	26	43	25	30	51
Azilda	156	0.4	0.4	0.4	25	35	51	11000	14500	19000	25	33	73	28	39	68
Sudbury (New)	74	0.4	0.4	0.4	25	31	43	11600	14000	18000	23	32	57	31	44	82
Sudbury (East)	62	0.4	0.4	0.4	23	31	43	11100	14000	19000	22	35	72	31	47	85
Garson	104	0.4	0.4	0.4	21	26	35	11000	12000	15000	21	32	70	24	36	52
Lively	187	0.4	0.4	0.9	24	32	47	12000	15000	21000	22	34	64	30	48	89
Sudbury (South)	92	0.4	0.4	0.9	24	32	47	11000	14000	18250	19	29	53	29	40	82
Sudbury (Core)	324	0.4	0.4	1.9	25	32	53	12000	15000	24850	24	47	159	31	50	119
Coniston	301	0.4	0.4	1.8	22	29	44	11000	15000	24000	27	51	140	33	52	90
Falconbridge	219	0.4	2.1	4.3	27	40	73	12800	21000	38000	29	66	150	31	50	69
Copper Cliff	290	0.4	1.4	3.4	29	38	60	14000	19000	33000	38	77	180	45	67	120

Communities ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

Table 7.0.2: Sudbury Communities as Grouped by Increasing Nickel Concentrations

Community	n	Cd			Cr			Fe			Zn			Ba		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Outer Sudbury	284	0.4	0.4	0.4	22	27	46	11000	13000	19850	19	27	56	25	35	68
Inner Sudbury	675	0.2	0.4	0.8	17	31	46	7500	14000	19000	12	32	64	15	43	82
Sudbury (Core)	324	0.4	0.4	1.9	25	32	53	12000	15000	24850	24	47	159	31	50	119
Coniston	301	0.4	0.4	1.8	22	29	44	11000	15000	24000	27	51	140	33	52	90
Falconbridge	219	0.4	2.1	4.3	27	40	73	12800	21000	38000	29	66	150	31	50	69
Copper Cliff	290	0.4	1.4	3.4	29	38	60	14000	19000	33000	38	77	180	45	67	120

Groups ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

As discussed in Sections 5.1 and 5.2, we defined three main types of soil samples: Soil, Sand and Gravel and four types of produce samples: Root Vegetables, Fruit Vegetables, Leafy Vegetables and Berries. The Soil sample type made up 88% of the soil (soil, sand, gravel) samples collected. This group was further sub divided into Urban Soil (developed, grassed areas, 85% of the total number of soil samples), Urban Garden Soil (residential vegetable gardens, 1% of the soil samples), Agricultural Soil (commercial market garden and berry farms, 1% of the soil samples) and Undisturbed Natural Soil (undeveloped, naturally vegetated areas, 1% of the soil samples).

The Sand sample type comprised 9% of the total number of soil samples collected. The Sand sample type was subdivided into Play Sand (8% of the total number of soil samples) and Beach Sand (1 % of the total number of soil samples). The Gravel sample type comprised 4% of the total soil samples collected and was subdivided into Crushed Stone and Playground Gravel, each comprising 2% of the total number of soil samples collected.

The Root Vegetable sample type comprised 24% of all produce collected, the Fruit Vegetable sample type 39%, Leafy Vegetable sample type 19% and the Berries sample type 18% of the total number of produce samples collected.

This section is organized into the following subsections:

Section 7.1 discusses the metals and arsenic concentrations observed in urban soil

Section 7.2 discusses the metals and arsenic concentrations in sand and gravel and compares these results to urban soil

Section 7.3 discusses the metals and arsenic concentrations observed in undisturbed natural soil and compares these results to urban soil

Section 7.4 discusses the metals and arsenic concentrations in the commercial and residential fruit and vegetable produce and compares these results to the urban garden soil.

Section 7.5 summarizes Sections 7.1 through 7.4.

7.1 Urban Soil Data Trends

This discussion focuses on the urban soil samples collected by the Ministry in the City of Greater Sudbury in 2001. Urban soil samples were generally collected from grassed landscaped areas within the City of Greater Sudbury urban area at up to three depth intervals, 0 - 5 cm, 5 - 10 cm and 10 - 20 cm. Urban soil samples consisted of all material less than 2 millimetres in diameter, ranging in texture from sand to silty clays.

The urban soil samples, discussed in this section, were collected from three land uses: residential, schools and parks. The 2001 sampling program was the first large scale Ministry sampling of residential and institutional land use in the City of Greater Sudbury. This sampling was completed to assess metal and arsenic concentrations in urban soil, potentially attributed to aerial deposition from local industry. Previous sampling conducted by the Ministry in the Sudbury area was restricted mainly to undisturbed natural areas (MOE 2001). As a consequence, the chemical concentrations contained within this 2001 Urban Soil Survey may vary from previous Ministry soil data from the Sudbury area.

In most cases, urban soils have been altered during development of the area or property. These alterations may affect the chemical concentrations found in the soil. Soil may have been added, graded, removed, mixed and/or altered by anthropogenic activities and may have occurred repeatedly over time. As a consequence of these alterations, chemical concentrations in urban soil may vary between properties and evidence of aerial deposition may be inconsistent.

As discussed previously, the 24 local communities and geographic groupings in the City of Greater Sudbury were grouped according to observed metal and arsenic concentrations in the soil samples. The selection and delineation of these community groupings was determined by interpreting the trends in the metals and arsenic concentrations of urban soil using best professional judgement and / or statistical analysis. This grouping was completed to facilitate the interpretation and discussion of the soil data.

For urban soil, pH analysis was completed on 472 samples and pH ranged from 4.3 to 8.1. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No urban soil samples analyzed had a pH value that exceeded 9.0, however, three urban soil samples had pH values below 5.0. These three samples were located at one park in Falconbridge and two schools in the Outer Sudbury Communities. In these three samples, the pH ranged from 4.32 to 4.95. The pH values for all other urban soil samples analyzed were within the range of 5.0 to 9.0. Refer to Section 10.3 for descriptive statistics and box and whisker plots.

For each community grouping, descriptive statistics, exceedences of applicable Ministry guidelines, spatial distribution of chemical concentrations, concentration depth profiles, and statistical correlations between elements were discussed.

7.1.1 Outer Sudbury Communities

As discussed in 7.0, the Outer Sudbury Communities grouping consists of fourteen local communities including Blezard Valley, Capreol, Chelmsford, Dowling, Hanmer, Levack, Naughton, Onaping Falls, Skead, Val Caron, Val Therese, Wahnapitae, Wanup and Whitefish. This grouping was based on the concentrations of nickel, copper, cobalt, arsenic, selenium, lead, cadmium, chromium, iron, zinc, and barium in 0 - 5 cm surface soil layer. Concentrations of the eleven elements used in determining this grouping were relatively low at all three depths. Refer to Table 7.1.1.1 and Section 10.3.1.

Table 7.1.1.1: Summary Statistics for Metals and Arsenic in Urban Soil of the Outer Communities of the City of Greater Sudbury, 2001.

Summary Statistic	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Outer Communities, n = 284																			
Minimum	4600	0.4	2.5	19	0.4	1600	18	3	9	8600	2	1200	100	0.75	17	0.5	13	8	13
10th percentile	7130	0.4	2.5	25	0.4	2700	22	4	21	11000	7	1800	140	0.75	32	0.5	23	23	19
1st quartile	8500	0.4	2.5	29	0.4	3200	24	5	26	12000	9	2100	160	0.75	39	0.5	28	26	22
Median	9700	0.4	2.5	35	0.4	4200	27	5	35	13000	11	2400	190	0.75	48	0.5	35	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5950	33	7	44	15000	14	3600	240	0.75	57	0.5	41	31	36
95th percentile	14000	0.4	7	68	0.4	11000	46	12	59	19850	35	5400	379	0.75	79	1.0	49	40	56
Maximum	27000	1.6	16	150	3.8	33000	67	22	97	33000	170	10000	650	1.7	151	1.2	76	78	78
Mean	9999	0.4	3.6	39	0.4	5133	30	6	36	13711	15	2943	210	0.76	50	0.5	35	29	31
CV (std. dev./mean)	28%	22%	70%	44%	57%	68%	28%	43%	38%	25%	95%	46%	40%	12%	35%	24%	27%	23%	39%
Skewness	2.4	9.6	3.2	3.1	12.1	12.1	3.8	1.8	2.3	1.1	2.2	6.0	2.0	2.3	8.5	1.7	3.8	0.4	2.2
5 to 10 cm Urban Soil in the Outer Communities, n = 228																			
Minimum	4900	0.4	2.5	17	0.4	1200	17	3	7	7700	4	1100	99	0.75	18	0.5	13	21	12
10th percentile	7170	0.4	3	24	0.4	2270	22	4	16	11000	6	1700	130	0.8	28	0.5	21	24	17
1st quartile	8400	0.4	2.5	28	0.4	2800	24	4	22	12000	8	1900	150	0.75	33	0.5	27	26	19
Median	9950	0.4	2.5	35	0.4	3700	27	5	29	13000	9	2200	180	0.75	40	0.5	34	28	25
3rd quartile	11000	0.4	2.5	43	0.4	5100	32	6	35	15000	12	3400	230	0.75	51	0.5	40	32	31
95th percentile	15000	0.4	7.6	74	0.4	9455	46	12	53	20000	22	5565	317	0.75	70	0.5	49	40	62
Maximum	37000	1.8	23	210	0.4	38000	77	19	71	36000	91	12000	590	1.7	134	2.0	58	74	97
Mean	10428	0.4	3.4	40	0.4	4505	29	6	30	13850	11	2809	202	0.76	43	0.5	34	30	28
CV (std. dev./mean)	36%	37%	86%	58%	0%	77%	31%	44%	39%	28%	80%	57%	39%	11%	37%	27%	29%	26%	49%
Skewness	3.5	6.2	4.2	3.9		5.4	2.6	2.5	0.8	2.6	5.2	2.8	2.3	10.8	1.9	6	0.0	2.8	2.3
10 to 20 cm Urban Soil in the Outer Communities, n = 213																			
Minimum	4900	0.4	2.5	14	0.4	1400	15	3	4	7000	3	1400	85	0.75	13	0.5	12	17	9
10th percentile	6520	0.4	3	22	0.4	2100	21	4	11	10000	5	1700	130	0.8	22	0.5	20	22	15
1st quartile	8200	0.4	2.5	28	0.4	2800	23	4	17	11000	6	1900	160	0.75	27	0.5	26	25	19
Median	9500	0.4	2.5	35	0.4	3500	27	5	25	13000	9	2200	190	0.75	38	0.5	33	28	24
3rd quartile	11000	0.4	2.5	43	0.4	4500	32	6	33	16000	11	3300	235	0.75	48	0.5	41	33	31
95th percentile	16400	0.4	7	76	0.4	8180	47	11	47	23000	21	5900	384	0.75	68	0.5	50	45	58
Maximum	31000	4.0	44	210	0.9	20000	78	29	100	35000	214	11000	600	2.7	124	1	68	66	230
Mean	10174	0.4	3.4	40	0.4	4185	29	6	27	13935	11	2836	206	0.77	40	0.5	33	30	27
CV (std. dev./mean)	36%	73%	112%	63%	9%	68%	33%	50%	54%	31%	144	59%	40%	21%	42%	17%	31%	28%	68%
Skewness	2.5	9.2	7.4	3.6	14.6	3.4	2.0	3.7	1.7	2.0	10	2.6	1.9	10.2	1.5	5.3	0.2	2	6.7

All results are in µg/g dry weight.

In the Outer Sudbury Communities, the concentrations of nickel, copper, cobalt, arsenic and lead were similar in the school, park and residential properties, with only marginal differences. Due to the low n-values for residential properties at all depths, comparisons with this group are very general. It should be noted that in the Outer Sudbury Communities all of the urban soil sampling sites were school or park properties except for 5 residential properties in Skead. Refer to Table 7.1.1.2.

Table 7.1.1.2: Summary Statistics for Metals and Arsenic in All 0-5 cm Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 12															
Minimum	7500	0.4	2.5	24	0.4	1700	19	5	20	11000	7	1800	130	0.75	32	0.5	22	23	18
10th percentile	7910	0.4	2.5	26	0.4	1820	20	5	22	12000	7	1830	143	0.75	34	0.5	22	24	23
1st quartile	8200	0.4	2.5	34	0.4	2250	23	5	28	12000	8	2150	170	0.75	36	0.5	23	25	26
Median	8900	0.4	2.5	41	0.4	2850	23	6	39	13000	10	2300	200	0.75	45	0.5	29	28	27
3rd quartile	11500	0.4	5.0	61	0.4	3250	29	7	46	14500	33	2650	220	0.75	50	0.5	30	30	40
95th percentile	12000	0.4	6.5	69	0.4	3535	43	8	56	16000	37	2890	258	0.75	58	0.5	31	33	47
Maximum	12000	0.4	7.0	71	0.4	3700	47	8	57	16000	40	3000	280	0.75	59	0.5	33	35	49
Mean	9517	0.4	3.6	46	0.4	2758	27	6	38	13417	18	2342	197	0.75	44	0.5	27	28	31
CV (std. dev./mean)	18%	0%	47%	36%	0%	23%	31%	19%	32%	12%	75%	16%	21%	0%	20%	0%	14%	12%	32%
Skewness	0.6		1.1	0.4		-0.5	1.7	0.4	0.0	0.4	0.9	0.2	0.3		0.3		-0.4	0.7	0.8
Schools and Daycares 0 to 5 cm				n = 95															
Minimum	5100	0.4	2.5	19	0.4	1700	18	3	12	8600	2	1200	100	0.75	17	0.5	16	20	13
10th percentile	7740	0.4	2.5	27	0.4	2440	23	4	21	11000	6	1900	134	0.75	32	0.5	22	23	21
1st quartile	8600	0.4	2.5	30	0.4	3200	25	5	26	11000	10	2100	150	0.75	38	0.5	27	26	23
Median	9600	0.4	2.5	35	0.4	4200	28	5	38	13000	12	2600	200	0.75	50	0.5	33	28	27
3rd quartile	11000	0.4	5.5	44	0.4	6400	34	7	48	15000	16	3650	250	0.75	65	0.5	39	32	37
95th percentile	13000	0.4	7.0	54	0.4	14300	46	10	69	17600	52	5460	330	0.75	83	1.0	48	37	52
Maximum	17000	0.8	8.0	81	0.8	33000	66	12	97	33000	170	8200	440	1.50	120	1.2	76	78	62
Mean	9769	0.4	3.6	37	0.4	5828	31	6	40	13587	18	3043	208	0.77	52	0.6	34	29	30
CV (std. dev./mean)	19%	17%	49%	28%	17%	84%	28%	34%	42%	24%	119	42%	32%	17%	37%	29%	30%	23%	34%
Skewness	0.5	5.4	1.1	1.4	5.4	3.3	1.8	1.1	1.1	2.7	4.5	1.3	0.8	5.4	1.2	3.0	1.0	4.1	1.0
Parks 0 to 5 cm				n = 177															
Minimum	4600	0.4	2.5	19	0.4	1600	18	4	9	9300	4	1600	110	0.75	19	0.5	13	8	13
10th percentile	6960	0.4	2.5	25	0.4	2860	22	4	20	11000	8	1800	140	0.75	33	0.5	24	23	19
1st quartile	8500	0.4	2.5	28	0.4	3300	24	5	26	12000	9	2100	160	0.75	39	0.5	31	26	22
Median	9700	0.4	2.5	34	0.4	4300	27	5	33	13000	11	2400	180	0.75	47	0.5	36	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5850	32	7	42	15000	14	3600	230	0.75	56	0.5	42	31	36
95th percentile	15200	0.4	9.4	71	0.4	9520	45	12	55	21000	27	5440	420	0.75	78	0.5	49	41	59
Maximum	27000	1.6	16	150	3.8	19000	67	22	74	29000	66	10000	650	1.70	151	1.0	61	55	78
Mean	10155	0.4	3.6	39	0.4	4921	29	6	34	13797	13	2931	212	0.76	50	0.5	36	29	31
CV (std. dev./mean)	32%	25%	80%	51%	70%	50%	28%	47%	34%	26%	57%	48%	44%	9%	35%	20%	24%	24%	42%
Skewness	2.3	9.7	3.3	3.1	9.9	2.4	1.9	2.4	0.6	1.9	3.2	2.2	2.4	13.3	2.0	4.4	0.0	1.3	1.6

All results are in µg/g dry weight.

At 0 - 5 cm the concentrations of nickel, copper and lead were marginally higher in school properties than park and residential properties, while the concentrations of cobalt and arsenic were marginally higher in parks. Concentrations in the schools were marginally higher than the residences from the 25th percentile for nickel, the 75th percentile for copper, and the 95th percentile for cobalt and lead. Generally, concentrations in the schools were marginally higher than the parks from the median to 95th percentile for nickel, copper and lead, and concentrations of cobalt and arsenic were lower from the 95th percentile.

In the parks, concentrations were marginally higher then residences from the 25th percentile for nickel, and from the 95th percentile for cobalt and arsenic. Concentrations in the residences were higher than the parks from the minimum value for copper, and from the 75th percentile for lead. The maximum concentrations for lead was approximately twice as high in school properties compared with park and residential properties, but still relatively low. The maximum concentrations for nickel, cobalt and arsenic were observed in park properties, and were approximately twice as high for cobalt and arsenic compared to school and residential properties but still relatively low.

At 5 - 10 cm and 10 - 20 cm, concentrations were marginally higher in the park properties then the school and residential properties. The concentration in the schools were marginally higher than the residences for nickel, and similar for copper, cobalt, arsenic and lead.

Table 7.1.1.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria at all depths in the Outer Sudbury Communities. Only nickel, arsenic and lead concentrations exceeded Table A at any depth in the Outer Sudbury Communities. Nickel only exceeded Table A in one surface soil sample replicate. When averaged with the second replicate, however, the average concentration for this sample location was below Table A. Lead also exceeded Table A in only one sample replicate, however, no second replicate was available. All four of the arsenic Table A exceedences occurred at station 5030910 in Whitefish. No other elements exceeded Table A at any depths in the Outer Sudbury Communities.

Table 7.1.1.3: Summary of MOE Table F and Table A Exceedences for All Depths of Urban Soil Samples in the Outer Sudbury Communities of the City of Greater Sudbury

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	1	5 (2%)	4 (2%)	0	0	0
Arsenic	0	2 (1%)	2 (1%)	0	2 (1%)	2 (1%)
Cadmium	2 (1%)	0	0	0	0	0
Chromium	0	3 (1%)	1	0	0	0
Cobalt	1	0	1	0	0	0
Copper	3 (1%)	0	2 (1%)	0	0	0
Lead	1	0	1	0	0	1
Molybdenum	0	0	1	0	0	0
Nickel	176 (62%)	94 (41%)	79 (37%)	1	0	0
Selenium	0	1	0	0	0	0
Zinc	0	0	1	0	0	0
No. of Samples	284	228	213	284	228	213

Eleven elements exceed Table F criteria in the Outer Sudbury Communities. With the exception of nickel, the numbers of Table F exceedences per element were small. At 0 - 5 cm, 62% of the urban soil samples exceeded Table F for nickel while at 10 - 20 cm, only 37% of the urban soil samples exceeded Table F for nickel.

Due to low concentrations, sampling and analytical error, and the inherent variability in urban soils, no concentration gradient with respect to the three main smelting locations for any of the elements in the Outer Sudbury Communities was observed. Figure 7.1.1.1 depicts the lack of concentration gradient in the Outer Sudbury Communities for nickel in the 0 - 5 cm soil. Refer to Sections 10.2.7 through 10.2.9 for concentration dot maps of nickel, copper, cobalt, arsenic and lead in the Outer Sudbury Communities. Due to the large area covered by the Outer Sudbury Communities the area is represented by three maps, Valley East, Valley West, and Sudbury West. The Valley East maps includes Capreol, Hanmer, Val Therese, Blezard Valley, Val Caron and Skead. The Valley West maps include Levack, Onaping Falls, Dowling, Chelmsford, and Azilda. The Sudbury West maps include Whitefish, Naughton and Lively.

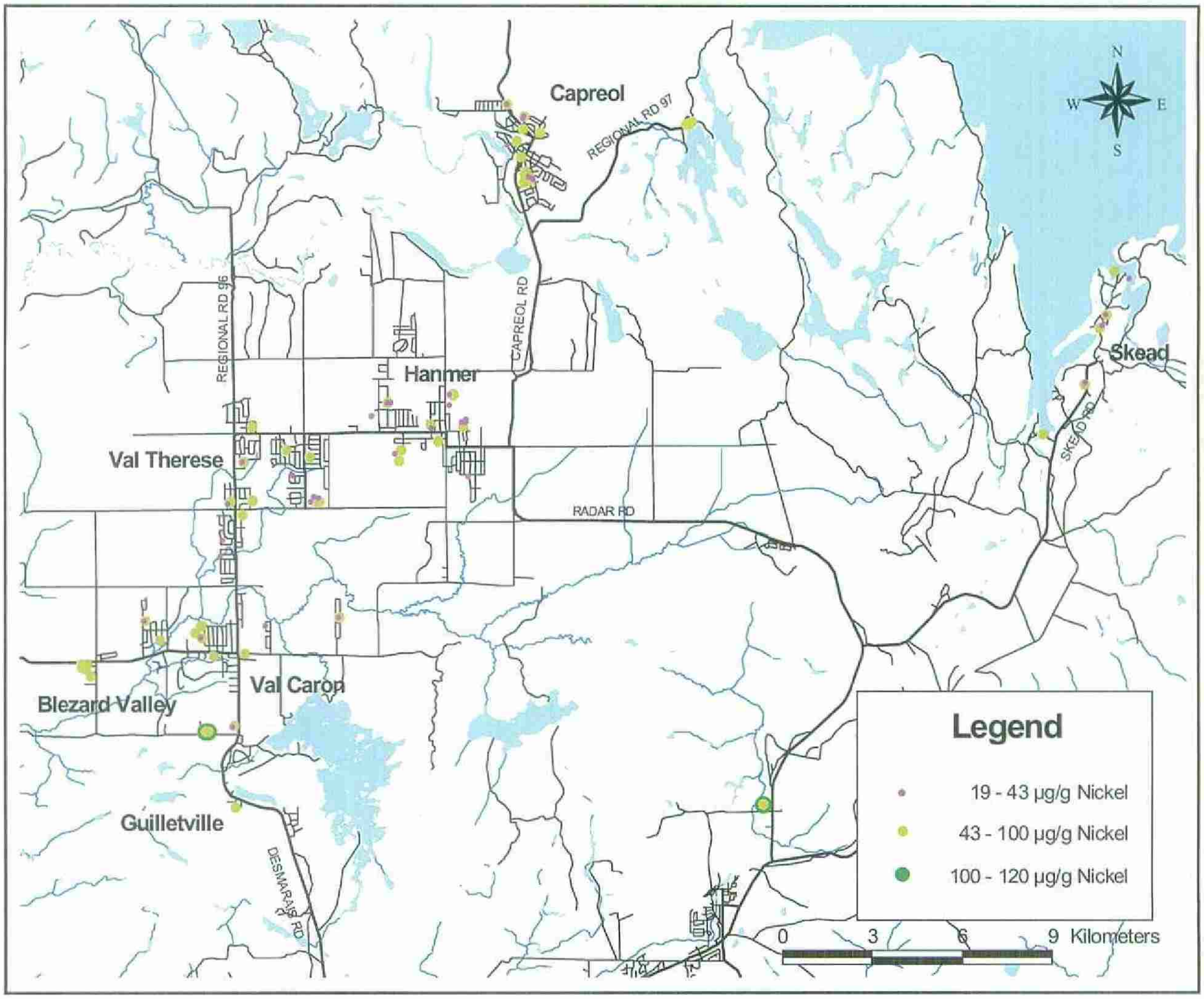

Figure 7.1.1.1: Ni concentrations in urban 0 - 5 cm soil in Valley East

As discussed in Section 5.3, the data was sorted by nickel concentrations to differentiate between the Group A, B and C trends. All three trends were observed in the Outer Sudbury Communities. In some cases, other elements did not show the same trend as nickel when the sorting was completed. This may be a reflection of average concentrations that are close or at the analytical method detection limit (MDL), as was the case for cadmium and selenium in the Outer Sudbury Communities. This may also be the result of poor correlation between other elements and nickel.

In the Outer Sudbury Communities, 49% of the sample locations exhibited a trend of decreasing concentrations with increasing depth, consistent with Group A. Nickel and copper concentrations, in Group A, showed a visual trend of decreasing concentration with depth in all quarters. Average concentrations at surface were 1.1 to 1.8 times the average concentrations at 10 - 20 cm for nickel and copper, for all quarters. Figure 7.1.1.2 depicts the depth profile of nickel in Group A for the Outer Sudbury communities.

Cobalt, lead, barium, iron and zinc showed a visual trend of aerial deposition in the third and fourth quarters. Average concentrations of these elements at surface were 1.1 to 1.4 times the average concentrations at 10 - 20 cm with the exception of lead. Average lead concentrations were 1.3 to

2.3 times at the surface than at 10 - 20 cm. A visual trend of aerial deposition was also observed in the first and second quarters for lead and zinc. Concentrations for selenium and cadmium in all quarters were at or near analytical MDLs, therefore no concentration trends were observed. The first through third quarters for arsenic in Group A were also at or near analytical MDLs, however, the average concentrations in the fourth quarter showed a slight increasing trend (1.1 times) with depth. This trend in the fourth quarter for arsenic may be an artifact of the sorting process.

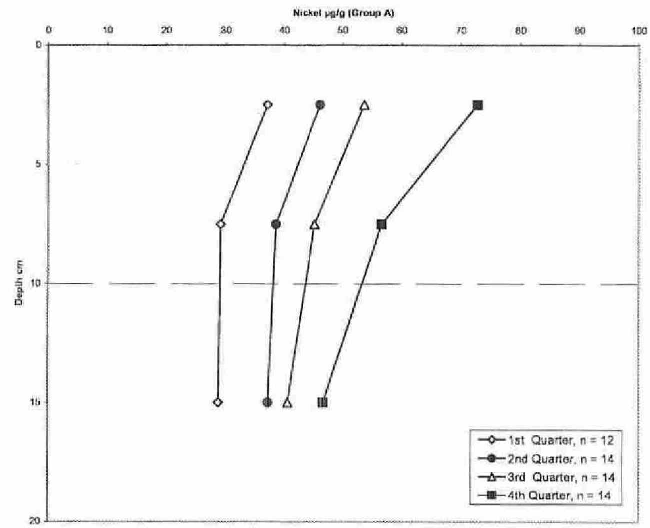

Figure 7.1.1.2: Outer Communities, Ni depth profiles, Group A.

Average aluminum, chromium and vanadium concentrations in Group A showed no observable change with depth in all four quarters. The wide range in concentrations between the quarters of these elements may indicate differences in soil type.

Refer to Section 10.5.1 for graphs of the depth profiles for the elements discussed above in the Outer Sudbury Communities.

In the Outer Sudbury Communities, 21% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Nickel, copper, lead and zinc concentrations, in Group B, showed a strong, visual trend of maximum concentration occurring at 5 - 10 cm in the second half (1.5 to 1.8 times the average surface concentrations). This trend was weak in the first half for these elements (1.1 to 1.3 times). Figure 7.1.1.3 depicts the depth profile of nickel in Group B for the Outer Sudbury Communities.

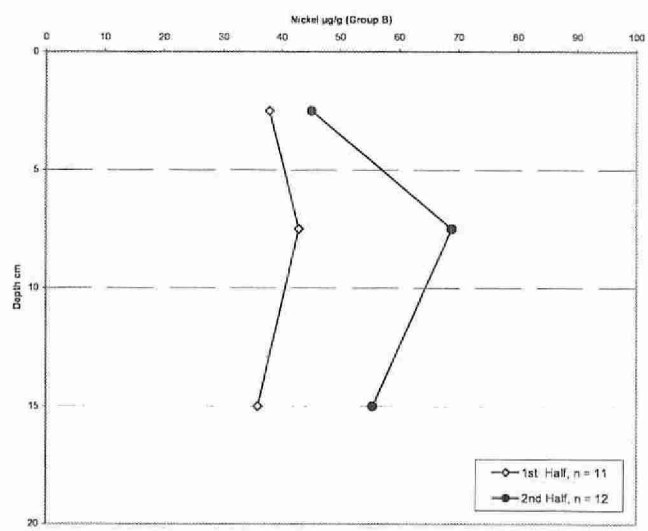

Figure 7.1.1.3: Outer Communities, Ni depth profiles, Group B.

Cobalt, aluminum, barium and chromium showed a weak Group B trend in the second half (1.1 to 1.2 times) and a weak or no observable change with depth in the first half. Concentrations for arsenic, selenium and cadmium in both halves were at or near analytical MDLs, therefore no concentration trends were observed. Average iron and vanadium concentrations in Group B showed no observable change with depth in both halves. Refer to Section 10.5.1 for graphs of the depth profiles for the elements discussed above.

In the Outer Sudbury Communities, 30% of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Nickel and copper concentrations, in Group C, showed a weak, visual trend of increasing concentrations in the first and second thirds (1.2 to 1.3 times the surface concentrations) and a strong, visual trend in the last third (1.4 to 1.6 times). Figure 7.1.1.4 depicts the depth profile of nickel in Group C for the Outer Sudbury Communities.

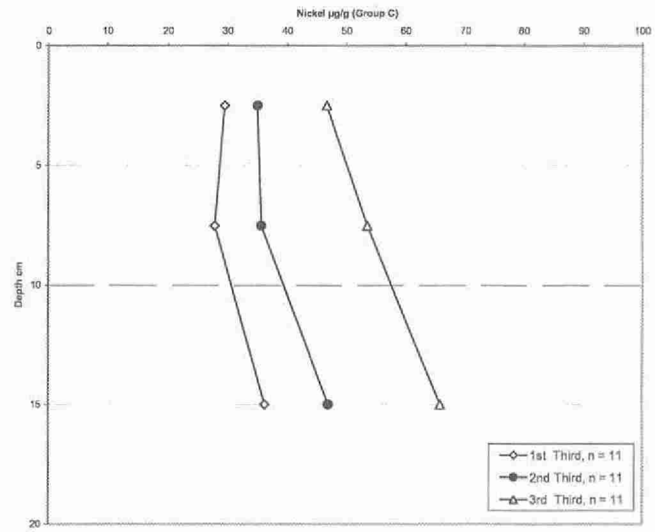

Figure 7.1.1.4: Outer Communities, Ni depth profiles, Group C.

Lead, aluminum and zinc showed a weak trend of increasing concentrations with depth in the last third (1.1 to 1.4 times). Lead also showed this weak trend in the second third (1.3 times). Aluminum and zinc showed a weak trend of decreasing concentration with depth in both the first and second thirds while lead showed this trend only in the first third. Barium showed no observable change in concentration with depth in the first and second thirds and showed a weak trend of decreasing concentration with depth in the last third.

Cobalt, chromium, iron and vanadium concentrations in Group C showed no observable change with depth for all thirds. Concentrations for arsenic, selenium and cadmium in all thirds were at or near analytical MDLs and generally no concentration trends were observed. Refer to Section 10.5.1 for graphs of the depth profiles for the elements discussed above.

Overall, nickel, copper, lead and zinc concentrations in 49% of the sample locations in the Outer Sudbury Communities showed an aerial deposition trend from surface (Group A). These sample locations appeared to be unaffected by landscaping practices. The remaining 51% of the sample locations appeared to be affected by some degree of landscaping practices as nickel, copper, lead and zinc concentrations showed strong to weak trends of maximum concentrations below surface (Groups B & C). These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. Cobalt, barium and iron also showed a weak aerial deposition trend from surface in 49% of the sample locations.

There is some question as to whether the Table F upper limit for background concentrations should be used for the City of Greater Sudbury due to the local geology. The Outer Sudbury Communities appear to be minimally impacted by aerial deposition and could be used to determine an upper limit of local background. For most elements there is evidence of at least a small amount of aerial deposition or evidence that landscaping practices have buried elevated concentrations resulting from aerial deposition. Given these restrictions, the local background was determined using only the 10 - 20 cm soil results.

Table 7.1.1.4: Comparison of the 98th Percentiles*, MOE Table F Values, and Table F Site Exceedences for All Samples from the Outer Sudbury Communities

Element	98th Percentile (μg/g)	Table F Value (μg/g)	Table F Site Exceedences
Antimony	<0.8	1	0
Arsenic	14	17	1 (1%)
Barium	133	210	0
Beryllium	<0.5	1.2	0
Cadmium	<0.8	1	0
Chromium	55	71	1 (1%)
Cobalt	12	21	0
Copper	77	85	0
Lead	31	120	1 (1%)
Molybdenum	1.1	2.5	0
Nickel	83 / 57*	43	43 (39%)
Selenium	1	1.9	0
Vanadium	59	91	0
Zinc	70	160	1 (1%)

* 98th percentile calculated for Ni, using only 10 to 20 cm, Group A results

The 10 - 20 cm replicates for each sampling location were averaged and 98th percentile values determined for each of the elements where Table F values exist, similar to the procedure used to create the Table F values. These values were calculated using the entire Outer Sudbury Community data set. The data was not segregated by depth trends (i.e. Group A, B and C). For antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, selenium, vanadium and zinc the 98th percentile calculated for the Outer Sudbury Communities based on the 10 - 20 cm soil samples were all well below the Table F values. Using the Table F values for these elements is therefore justified. Refer to Table 7.1.1.4 for 98th percentiles calculated for the Outer Sudbury Communities, the corresponding Table F values and number of locations that exceeded Table F values for each element.

The 98th percentile calculated for nickel, using the entire Outer Sudbury Communities data set, was 83 μg/g which exceeded the Table F value of 43 μg/g. Forty three of the 110 sampling locations exceed the Table F value for nickel. The nickel concentrations in Group A decrease with depth and the 98th percentile of the 10 - 20 cm sample results in Group A was calculated to be 57 μg/g. Fifteen of 54 Group A sampling locations exceeded the Table F value for nickel. It should be noted that the Group A fourth quarter data for nickel did not appear to approach the background concentrations at 10 - 20 cm. If the data from this quarter was removed, the Group A 98th percentile value would likely be closer to the Table F nickel value of 43 μg/g. The 98th percentiles determined here will not be used in this report to replace the Table F for nickel because of the limited number of sampling points and the depths collected may not have been deep enough. Laurentian University was responsible for conducting extensive sampling in undisturbed areas in 2001 for the purpose of determining an accurate background concentration for the City of Greater Sudbury.

Table 7.1.1.5: Pearson's and Spearman's Correlations for 0 - 5 cm Urban Soil in the Outer Sudbury Communities

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.1*	*0.7*	*0.1*	*0.7*	*0.3*	*0.2*	*0.7*	*0.2*	*0.3*	*0.5*	*0.3*	*0.0*	*0.6*	*0.7*	*0.5*
As	0.1	1	*0.1*	*0.1*	*0.0*	*0.1*	*0.3*	*0.1*	*0.3*	*-0.1*	*0.0*	*0.2*	*0.1*	*-0.2*	*0.0*	*0.2*
Ba	**0.9**	0.1	1	*0.2*	*0.7*	*0.6*	*0.3*	*0.7*	*0.3*	*0.6*	***0.8***	*0.4*	*0.0*	*0.6*	*0.7*	*0.7*
Cd	0.2	0.0	0.2	1	*0.1*	*0.2*	*0.1*	*0.2*	*0.1*	*0.1*	*0.2*	*0.0*	*0.3*	*0.1*	*0.2*	*0.2*
Cr	0.7	0.0	0.7	0.2	1	*0.6*	*0.2*	***0.8***	*0.3*	*0.7*	*0.6*	*0.2*	*0.0*	*0.6*	***0.8***	*0.6*
Co	0.5	0.1	0.7	0.2	0.6	1	*0.3*	***0.8***	*0.3*	*0.7*	***0.8***	*0.4*	*0.0*	*0.3*	*0.7*	*0.6*
Cu	0.2	0.3	0.2	0.0	0.2	0.4	1	*0.3*	*0.6*	*0.1*	*0.3*	***0.9***	*0.1*	*0.0*	*0.2*	*0.4*
Fe	**0.8**	0.1	**0.8**	0.2	**0.8**	**0.8**	0.3	1	*0.2*	*0.7*	***0.8***	*0.2*	*0.0*	*0.4*	***0.9***	*0.7*
Pb	0.1	0.1	0.2	0.0	0.3	0.1	0.2	0.0	1	*0.1*	*0.2*	*0.5*	*0.1*	*0.0*	*0.2*	*0.6*
Mg	0.5	0.0	0.6	0.1	0.6	0.7	0.1	0.7	0.0	1	*0.7*	*0.1*	*0.0*	*0.4*	*0.6*	*0.5*
Mn	0.6	0.2	0.7	0.1	0.6	**0.8**	0.3	**0.8**	0.1	0.6	1	*0.3*	*0.0*	*0.4*	***0.8***	*0.7*
Ni	0.2	0.2	0.2	0.0	0.2	0.3	**0.8**	0.2	0.2	0.1	0.3	1	*0.1*	*0.2*	*0.2*	*0.4*
Se	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.2	1	*-0.1*	*0.0*	*0.1*
Sr	0.5	-0.1	0.4	0.1	0.5	0.3	0.0	0.4	0.0	0.4	0.4	0.1	0.0	1	*0.5*	*0.2*
V	0.7	0.1	0.7	0.1	**0.8**	0.7	0.2	**0.9**	0.0	0.6	0.7	0.2	0.0	0.4	1	*0.6*
Zn	0.6	0.3	0.7	0.2	0.6	0.7	0.5	0.7	0.3	0.5	**0.8**	0.4	0.1	0.2	0.6	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Table 7.1.1.5 for an abbreviated version of the results of the Pearson's and Spearman's analysis for the 0 - 5 cm depth and Tables 10.4.1.1 through 10.4.1.3 for the full results of the analysis at all three depths. In Table 7.1.1.5 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Of the major elements emitted by the mining and smelting processes in the Sudbury area only nickel and copper were strongly correlated with each other in the Outer Sudbury Communities at the 0 - 5 cm depth using Pearson's and Spearman's; 0.8 and 0.9, respectively. The correlation between nickel and copper remained strong and constant, with depth, using Spearman's and strong, although slightly decreasing with depth, using Pearson's. Arsenic did not correlate with any element at any depth using either Pearson's or Spearman's. Refer to Figures 7.1.1.5 and 7.1.1.6 for graphs of the

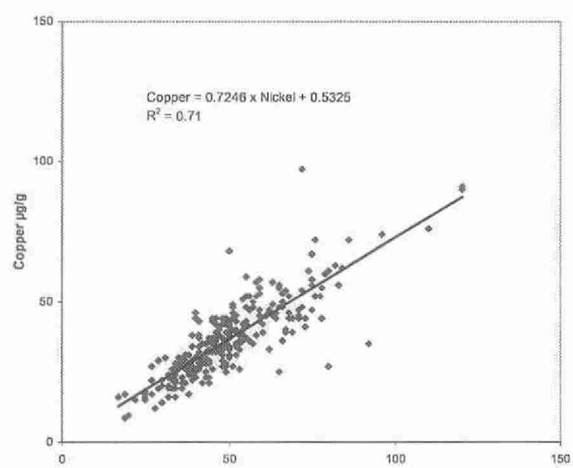

Figure 7.1.1.5: Cu vs. Ni, 0-5 cm, Outer Communities

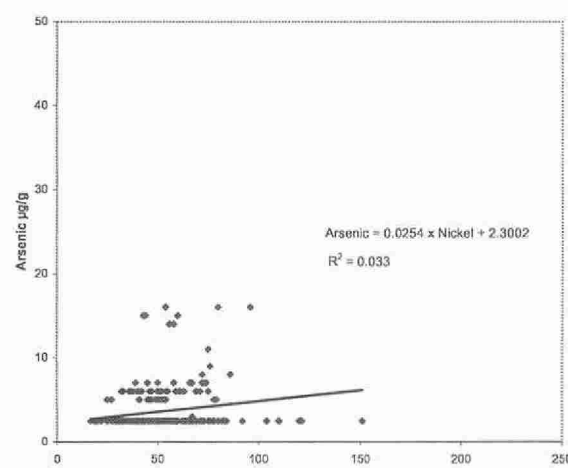

Figure 7.1.1.6: As vs Ni, 0-5 cm, Outer Communities

Ni/Cu and Ni/As correlations.

Using Pearson's and Spearman's, lead did not correlate with any elements at either the 0 - 5 or 5 - 10 cm depth intervals with the exception of a moderate correlation with zinc at 5 - 10 cm. At 10 - 20 cm, lead strongly correlated with cadmium and zinc in Pearson's but these correlations were largely driven by station 5030770 in McNicol Playground, Capreol. A moderate correlation between lead and copper was observed with Spearman's at this depth.

Strong or moderate correlations of cadmium with lead, molybdenum and/or zinc at 0 - 5 cm and 10 - 20 cm were largely driven by station 5030817, Douglas St playground in Dowling, at the 0 - 5 cm depth and by station 5030770 at the 10 - 20 cm depth. Cadmium was not detected above the analytical detection limit in any of the 5 - 10 cm samples and therefore did not correlate with any elements at this depth.

Pearson's and Spearman's showed both strong and moderate correlations between aluminum, barium, chromium, cobalt, iron, magnesium, manganese, vanadium and zinc at all depths. Overall the number and strength of these correlations generally increased with depth with little difference between Pearson's and Spearman's. Strontium and calcium became correlated to these elements in the 5 - 10 cm and 10 - 20 cm depths. Refer to Tables 10.4.1.1 through 10.4.1.3.

The correlations of aluminum, barium, iron, manganese, and vanadium are consistently strong in the Outer Sudbury Communities especially at depth. The increase in the number and strength of these correlations with depth is indicative of less disturbed soil at depth. Refer to Figures 7.1.1.7 and 7.1.1.8. This along with the soil profiles for these elements show that these elements appear to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. Cobalt and chromium concentrations in the Outer Sudbury Communities tended to correlate with these naturally occurring elements indicating that cobalt and chromium concentrations also appear to be attributed to natural background concentrations rather than emissions from smelting activities. Cobalt and chromium concentrations in the Outer Sudbury Communities did not correlate with nickel and copper concentrations at any depth.

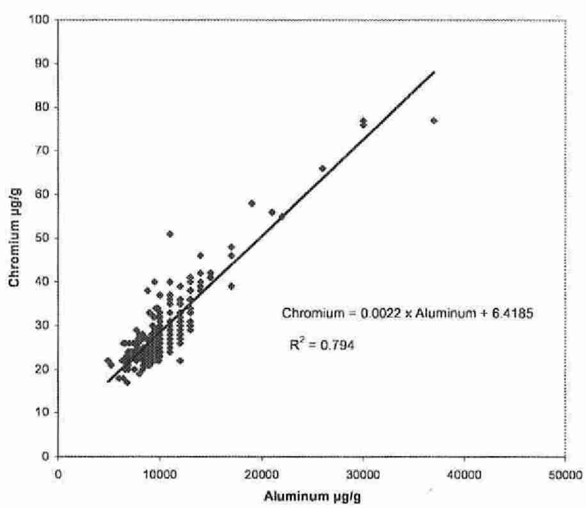

Fig. 7.1.1.7: Cr vs. Al, 5-10 cm, Outer Communities

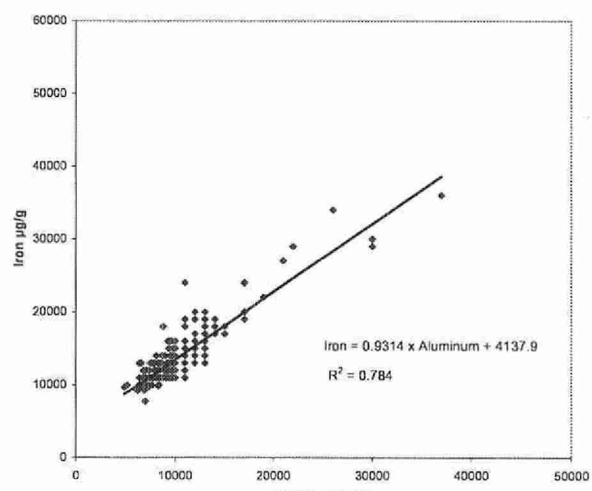

Fig. 7.1.1.8: Fe vs. Al, 5-10 cm, Outer Communities

Nickel and copper concentrations, in the Outer Sudbury Communities, strongly correlated only with each other and not with any other element at any depth. In the Ontario Typical Range (OTR) data that was used to create the Table F criteria, there were strong Spearman's correlations between cobalt and aluminum, barium, chromium, iron and nickel and a moderate correlation with vanadium. Nickel showed strong correlations with copper, cobalt, chromium and aluminum. The number and strength of the OTR correlations indicates that Ontario background concentrations of nickel, cobalt and copper generally correlate with elements such as aluminum, barium, chromium, iron and vanadium. Since, nickel and copper concentrations were not strongly correlated with any other elements in the Outer Sudbury Communities, nickel and copper appear to be slightly elevated due to emissions from the mining and smelting operations. OTR data was collected throughout Ontario including one third of the data from Northern Ontario. Refer to Figures 7.1.1.9 and 7.1.1.10. Refer to Figures 10.4.1.1 through 10.4.1.39 for a complete list of graphs showing selected element correlations at all three depths for the Outer Sudbury Communities.

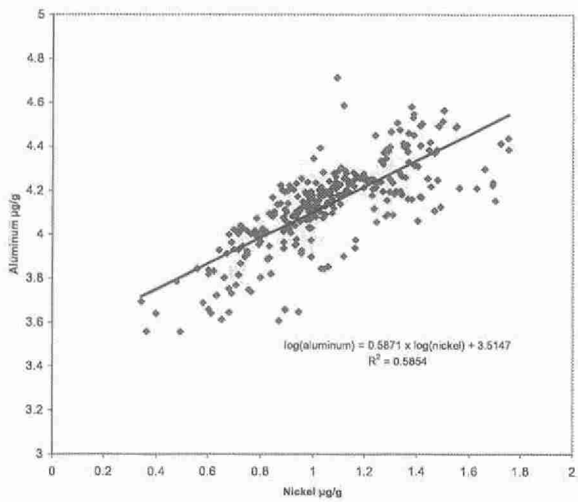

Figure 7.1.1.9: Ni vs Al in OTR rural data.

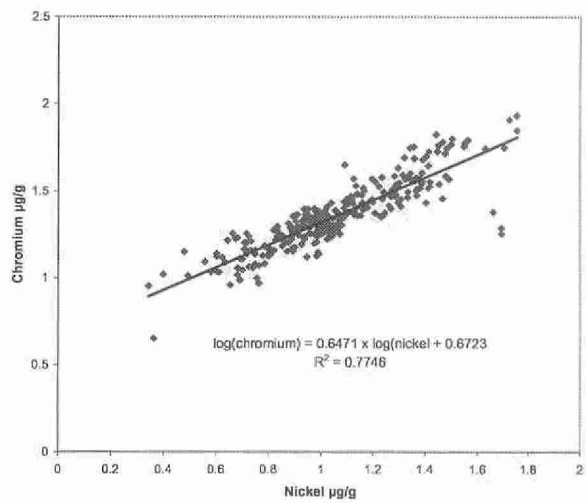

Figure 7.1.1.10: Ni vs Cr in OTR rural data.

In the Outer Sudbury Communities, only a small number of sample locations exceeded Table A for nickel, arsenic and lead at any depth. Eleven elements exceeded Table F criteria in the Outer Sudbury Communities. With the exception of nickel, the numbers of Table F exceedences per element were small. Nickel, copper, lead and zinc concentrations, in approximately half of the sample locations, showed a strong aerial deposition trend from surface. At the remaining sample locations, elevated concentrations of these elements occurred below surface. These elevated concentrations may still be attributed to aerial deposition, however, may have been buried by landscaping practices over time. Cobalt, barium and iron also showed a weak aerial deposition trend from surface in approximately half of the sample locations. Despite evidence of aerial deposition, no concentration gradient for nickel, copper, lead and zinc was observed in the Outer Sudbury Communities. No concentration gradients were observed for any elements.

Nickel and copper concentrations in the Outer Sudbury Communities only strongly correlated with each other and not with any other element at any depth. Aluminum, barium, iron, manganese, and vanadium appeared to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. Cobalt and chromium concentrations in the Outer Sudbury Communities tended to correlate with these naturally occurring elements and not with nickel and copper. Using the data

from the Outer Sudbury Communities, local Sudbury background concentrations were calculated. Only the local nickel background concentration exceeded the Table F criteria. This indicates that with the exception of nickel, the Table F criteria appear to be appropriate for use in the City of Greater Sudbury.

7.1.2 Inner Sudbury Communities

As discussed in 7.0, the Inner Sudbury Communities grouping consisted of three local communities and three geographic groupings including Azilda, Garson, Lively, Sudbury East, Sudbury New and Sudbury South. The grouping was based on the concentrations of nickel, copper, cobalt, arsenic, selenium, lead, cadmium, chromium, iron, zinc, and barium in 0 - 5 cm surface soil. Concentrations of the eleven elements used in determining this grouping are relatively low but higher than the Outer Sudbury Communities. Refer to Table 7.1.2.1.

Table 7.1.2.1: Summary Statistics for Metals and Arsenic in Urban Soil of the Inner Sudbury Communities of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Inner Communities, n = 675																			
Minimum	4100	0.4	2.5	15	0.2	1800	17	3	11	7500	2	1300	90	0.75	16	0.5	10	17	12
10th percentile	7400	0.4	2.5	29	0.4	3200	24	5	35	11000	8	2200	150	0.75	47	0.5	24	24	21
1st quartile	8500	0.4	2.5	34	0.4	3900	27	6	47	13000	10	2500	170	0.75	62	0.5	30	26	26
Median	9800	0.4	2.5	43	0.4	5000	31	7	67	14000	14	3100	200	0.75	84	0.5	36	29	32
3rd quartile	11000	0.4	6.0	53	0.4	6400	36	9	100	16000	22	3700	240	0.75	125	0.5	42	32	40
95th percentile	15000	0.8	11	82	0.8	10300	46	14	183	19000	49	5200	310	0.75	250	1.0	50	37	64
Maximum	19000	4.4	30	130	2.0	27000	70	42	1400	27000	220	13000	510	6.40	1400	6.0	170	47	150
Mean	10100	0.5	4.9	46	0.4	5475	32	8	88	14329	21	3306	210	0.79	109	0.6	36	30	35
CV (std. dev./mean)	24%	66%	72%	36%	37%	46%	23%	47%	105%	19%	114	36%	26%	35%	93%	65%	30%	16%	45%
Skewness	0.7	7.5	2.5	1.3	5.8	2.5	1.0	4.2	7.9	1.1	4.6	2.5	1.3	13.8	7	7.3	3.2	0.5	2.6
5 to 10 cm Urban Soil in the Inner Communities, n = 531																			
Minimum	5100	0.4	2.5	15	0.4	1400	17	3	8	7500	1	1300	92	0.75	17	0.5	13	13	9
10th percentile	6900	0.4	2.5	26	0.4	2600	23	5	27	11000	6	2000	140	0.75	37	0.5	23	24	18
1st quartile	8400	0.4	2.5	33	0.4	3200	25	6	38	12000	8	2300	160	0.75	50	0.5	28	26	22
Median	9900	0.4	2.5	42	0.4	4100	30	7	54	14000	11	2900	190	0.75	68	0.5	34	30	27
3rd quartile	12000	0.4	7	53	0.4	5300	34	8	75	16000	14	3600	230	0.75	96	0.5	40	33	35
95th percentile	15000	0.4	11	86	0.4	9150	46	11	120	20000	27	5400	315	0.75	150	1.0	49	40	58
Maximum	22000	6.5	34	150	1.2	22000	75	29	880	26000	310	10000	440	3.20	880	5.0	65	50	160
Mean	10269	0.4	4.9	46	0.4	4672	31	7	64	14251	14	3120	201	0.78	80	0.6	34	30	31
CV (std. dev./mean)	27%	74%	81%	43%	18%	51%	25%	35%	90%	21%	162%	38%	30%	25%	75%	54%	26%	18%	50%
Skewness	0.8	14.6	3.2	1.7	7.3	2.6	1.3	2.7	9.2	0.9	9.8	1.8	1.0	7.4	7.3	6.2	0.2	0.6	3.1
10 to 20 cm Urban Soil in the Inner Communities, n = 492																			
Minimum	4900	0.4	2.5	16	0.4	1500	17	4	9	8000	2	1400	93	0.75	18	0.5	12	10	9
10th percentile	6200	0.4	2.5	24	0.4	2310	21	4	23	10000	5	2000	130	0.75	32	0.5	20	23	15
1st quartile	8000	0.4	2.5	33	0.4	3000	25	5	31	12000	6	2300	160	0.75	43	0.5	27	25	19
Median	9900	0.4	2.5	44	0.4	4000	29	7	46	14000	9	2900	200	0.75	58	0.5	34	29	25
3rd quartile	12000	0.4	6.0	62	0.4	5300	36	9	68	17000	13	3900	250	0.75	86	0.5	41	34	34
95th percentile	17000	0.4	11	100	0.4	9435	49	12	130	22000	28	6045	330	0.75	160	1.0	53	43	53
Maximum	23000	3.9	40	160	1.2	24000	69	21	340	30000	150	11000	430	21.00	360	2.0	60	62	110
Mean	10419	0.4	4.8	50	0.4	4561	31	7	56	14553	12	3269	205	0.81	71	0.6	34	30	29
CV (std. dev./mean)	34%	56%	82%	50%	17%	56%	30%	34%	71%	26%	105%	42%	31%	114%	63%	31%	30%	22%	49%
Skewness	1.0	10.5	3.8	1.4	8.8	2.6	1.2	1.3	2.7	1.0	5.6	1.7	0.7	21.5	2.4	2.9	0.2	0.8	2.0

All results are in µg/g dry weight.

In the 0 - 5 cm soil samples, nickel and copper concentrations were approximately double the concentrations found in the Outer Sudbury Communities (Table 7.1.1.1). Lead had a slight increase from the 70th percentile up. Arsenic, barium, cobalt and selenium had only a small increase from the 95th percentile up as compared to the Outer Sudbury Communities. Aluminum, iron, vanadium and zinc were only higher at the maximum concentrations. In the 10 - 20 cm soil samples, nickel and copper were approximately double the concentrations found in the Outer Sudbury Communities from the 80th percentile up. All other elements were essentially the same between the Inner and Outer Sudbury Communities at the 10 - 20 cm depth.

It should be noted that in the Outer Sudbury Communities all of the urban soil sampling sites were school or park properties except for 5 residential properties in Skead. In the Inner Sudbury Communities half of the urban soil samples were from residential properties, with the other half from either school or park properties. Two residential properties, stations 5037916 and 5037939, were atypical in that they were considerably higher in concentration for most elements. At station 5037939 the owner informed the Ministry representative that the yard in question had been filled in and he did not know the origin of the fill. At station 5037916, the concentrations of one sample replicate was approximately an order of magnitude higher for most elements. As a result, these two properties elevated the maximum and 95th percent concentrations observed in the Inner Sudbury Communities. For the purposes of depth profile and correlation analysis the results from these two stations were removed from the data set.

In the Inner Sudbury Communities, the concentrations of nickel, copper, cobalt, arsenic and lead varied between residential, school and park properties and with depth. The sample size for the school properties decreased substantially at 5 - 10 and 10 - 20 cm. This reduction in sample size may affect the validity of comparisons between the school properties and the other land uses. Refer to Table 7.1.2.2.

Table 7.1.2.2: Summary Statistics for Metals and Arsenic for All 0- 5 cm Urban Soil Samples from the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 314															
Minimum	5300	0.4	2.5	26	0.2	2000	17	4	20	7500	4	1800	120	0.75	30	0.5	14	17	15
10th percentile	7600	0.4	2.5	33	0.4	3500	26	6	41	12000	9	2200	150	0.75	53	0.5	27	25	24
1st quartile	8900	0.4	2.5	39	0.4	4000	28	6	56	13000	12	2500	180	0.75	70	0.5	32	27	29
Median	10000	0.4	5.0	49	0.4	4900	32	8	79	14000	17	3000	205	0.75	90	0.5	38	30	36
3rd quartile	12000	0.4	7.0	62	0.4	5900	38	10	120	16000	25	3600	240	0.75	140	0.5	42	33	47
95th percentile	15350	0.8	12	88	0.8	8135	47	15	217	20000	46	4700	310	1.50	270	1.0	50	38	71
Maximum	19000	2.5	30	130	2.0	18000	70	41	1400	27000	220	9200	450	6.40	1400	6.0	63	47	150
Mean	10687	0.5	5.5	53	0.4	5256	33	9	106	14803	23	3161	214	0.83	124	0.7	37	30	41
CV (std. dev./mean)	23%	56%	70%	35%	43%	39%	22%	49	116	20%	104%	31%	25%	49%	105%	75%	22%	16%	46%
Skewness	0.6	5.8	2.2	1.1	4.9	2.7	0.9	4.2	6.6	1.2	5.0	2.4	1.1	9.6	6.5	6.8	-0.1	0.5	2.4
Schools and Daycares 0 to 5 cm				n = 175															
Minimum	4100	0.4	2.5	15	0.4	2000	20	3	11	8500	2	1600	110	0.75	16	0.5	14	20	12
10th percentile	7340	0.4	2.5	28	0.4	2900	24	5	26	11000	6	2300	150	0.75	38	0.5	23	24	20
1st quartile	8200	0.4	2.5	32	0.4	3600	28	6	39	12500	9	2600	170	0.75	57	0.5	28	26	25
Median	9200	0.4	2.5	40	0.4	5100	31	7	56	14000	12	3100	200	0.75	73	0.5	33	29	29
3rd quartile	10300	0.4	6.0	45	0.4	6900	35	9	100	15000	21	4000	230	0.75	120	0.5	41	32	35
95th percentile	12000	0.5	8.0	53	0.5	11000	43	13	160	17300	113	5460	270	0.75	205	1.2	48	34	52
Maximum	14000	4.4	9.0	70	1.6	18000	67	42	370	24000	200	9200	380	1.60	630	4.0	170	39	75
Mean	9249	0.5	3.8	39	0.4	5584	32	8	73	13809	24	3426	202	0.75	95	0.6	35	29	31
CV (std. dev./mean)	18%	89%	51%	23%	36%	46%	22%	54	68%	17%	136%	35%	21%	9%	76%	64%	41%	12%	35%
Skewness	-0.3	7.0	1.0	0.4	5.3	1.3	1.6	4.9	2.3	1.1	3.0	1.7	0.5	13.2	3.5	5.1	5.2	0.0	1.6
Parks 0 to 5 cm				n = 186															
Minimum	4900	0.4	2.5	18	0.4	1800	17	4	13	9100	3	1300	90	0.75	25	0.5	10	17	13
10th percentile	6900	0.4	2.5	26	0.4	2900	22	5	32	11000	7	2200	140	0.75	45	0.5	23	22	19
1st quartile	8200	0.4	2.5	31	0.4	4000	24	6	45	12000	10	2400	160	0.75	62	0.5	29	25	25
Median	9600	0.4	2.5	40	0.4	5000	28	8	60	14000	13	3200	200	0.75	82	0.5	36	28	30
3rd quartile	11000	0.4	6.0	49	0.4	6600	34	9	79	15000	17	3800	240	0.75	110	0.5	44	32	36
95th percentile	15000	0.4	12	74	0.4	12000	45	14	168	19000	26	6250	318	0.75	247	1.0	56	37	51
Maximum	17000	2.6	27	95	1.0	27000	57	20	230	22000	50	13000	510	0.75	304	1.0	80	42	77
Mean	9911	0.4	4.7	42	0.4	5741	30	8	70	14018	14	3438	211	0.75	96	0.6	37	29	31
CV (std. dev./mean)	25%	51%	81%	36%	15%	54%	25%	35	58%	20%	50%	43%	32%	0%	59%	29%	30%	17%	34%
Skewness	0.7	7.4	2.4	1.1	9.6	2.8	1.1	1.0	1.7	0.7	2.0	2.6	1.5		1.8	2.4	0.6	0.5	1.4

All results are in µg/g dry weight.

Cobalt concentrations were generally similar in all three land uses at all depths. Concentrations of nickel and copper were generally higher in residential properties than in school and park properties, except at 10 - 20 cm where these elements were similar in both residential and park properties . Nickel and copper concentrations in the residential properties were higher than school and park properties from the 10th percentile to the median and onwards, dependant on the depth and element. Nickel concentrations between residential and park properties at 5 - 10 cm were very similar except for a higher maximum value for the residential properties. Arsenic concentrations were higher in the residential and park properties than in the schools at surface from the median to the 90th percentile and onwards and marginally higher in the 5 - 10 cm soi layer. At 10 - 20 cm, arsenic concentrations in the park properties were higher than in the residential and school properties from the 95th percentile and onwards. Except for the surface, lead concentrations were higher in the residential properties than in the park and school properties from the 30th to 80th percentiles and onwards, respectively. At the surface, lead concentrations were generally higher in the school properties, from the 80th to 90th percentile and onwards, with the exception of the maximum value which was highest in residential properties.

Selenium concentrations were marginally higher in the residential and school properties at the surface and in the residential properties at 5 - 10 cm. Selenium concentrations were similar at depth between all land uses. Zinc concentrations were higher in the residential properties at all depths. Chromium and iron concentrations were also generally higher in the residential and park properties below surface. This trend may be the result of the small number of samples for the school properties below surface. Cadmium concentrations were similar at all depths between all land uses.

Generally, concentrations of nickel, copper, and to a lesser extent cobalt, were substantially higher in school and park properties at the surface compared to the Outer Sudbury Communities. Concentrations remained higher than the Outer Sudbury Communities for nickel and copper with depth.

Table 7.1.2.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in All Urban Soil Samples from the Inner Communities of the City of Greater Sudbury

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	21 (3%)	5 (1%)	8 (2%)	0	0	0
Arsenic	7 (1%)	7 (1%)	6 (1%)	4 (1%)	7 (1%)	3 (1%)
Cadmium	7 (1%)	2	3 (1%)	0	0	0
Chromium	0	1	0	0	0	0
Cobalt	8 (1%)	2	0	2	0	0
Copper	240 (36%)	102 (19%)	74 (15%)	19 (3%)	3 (1%)	4 (1%)
Lead	16 (2%)	4 (1%)	1	1	4 (1%)	0
Molybdenum	2	1	1	0	0	0
Nickel	622 (92%)	442 (83%)	362 (74%)	115 (17%)	25 (5%)	28 (6%)
Selenium	12 (2%)	8 (2%)	1	0	0	0
No. of Samples	675	531	492	675	531	492

Table 7.1.2.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria in the Inner Sudbury Communities. Concentrations of nickel, copper, cobalt, arsenic and lead exceeded Table A at one or more depth intervals in the Inner Sudbury Communities. Only nickel,

copper and arsenic concentrations exceeded Table A at all depths. No other elements exceeded Table A at any depths in the Inner Sudbury Communities. Ten elements exceed Table F criteria in the Inner Sudbury Communities. With the exception of nickel and copper, the numbers of Table F exceedences per element were small. At 0 - 5 cm, 92% of the urban soil samples exceeded Table F for nickel, and 36% exceeded for copper. At 10 - 20 cm, only 74% of the urban soil samples exceeded Table F for nickel, and 15% exceeded for copper.

Concentration dot maps were created for nickel, copper, cobalt, arsenic and lead at the 0 - 5 cm soil depth for the Inner Sudbury Communities. Concentration gradient trends in this community group were observed for nickel and copper for the 0 - 5 cm soil. Nickel concentrations generally decreased slightly to the south and northwest with respect to Copper Cliff. The number of Table A exceedences decreased with increasing distance from the smelter. There was also a small trend of decreasing copper concentrations in all directions with respect to increasing distance from Copper Cliff. This trend continues into the Outer Sudbury Communities. For an example of the spacial distribution trend in the Inner Sudbury Communities for nickel in the 0 - 5 cm soil, refer to Figure 7.1.2.1.
No concentration gradient trend was observed for cobalt, arsenic or lead in the Inner Sudbury Communities. Refer to Sections 10.2.5 through 10.2.7 and 10.2.9 for concentration dot maps of

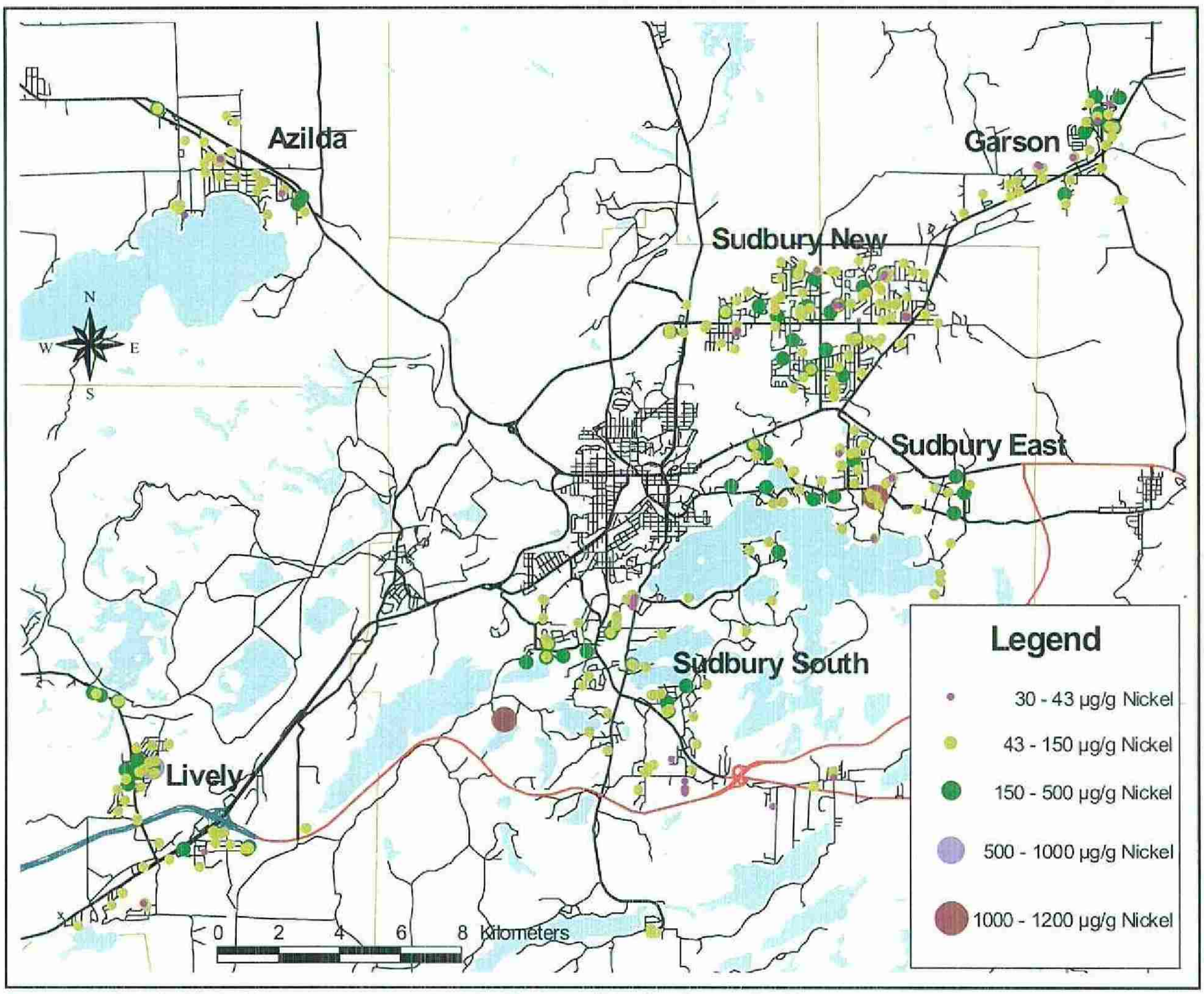

Figure 7.1.2.1: Nickel concentrations in 0 to 5 cm soil in the Inner Sudbury Communities

nickel, copper, cobalt, arsenic and lead at 0 - 5 cm in these communities. Due to the large area covered by the Inner Sudbury Communities, the area is represented by four maps: Sudbury New/East/Garson, Sudbury South, Valley West, and Sudbury West.

In the Inner Sudbury Communities, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Seventy-eight percent of the sample locations exhibited a trend of decreasing concentrations with increasing depth, consistent with Group A. Nickel, copper, lead and zinc, and to a lesser extent cobalt, concentrations in Group A showed a visual trend of decreasing concentration with depth in all quarters. Average concentrations at the surface were 1.1 to 1.5 times the concentration at 10 - 20 cm for cobalt and zinc while average concentrations at the surface were 1.3 to 2.8 times those at depth for nickel, copper and lead. Figure 7.1.2.2 depicts the depth profile of lead in Group A for the Inner Sudbury Communities.

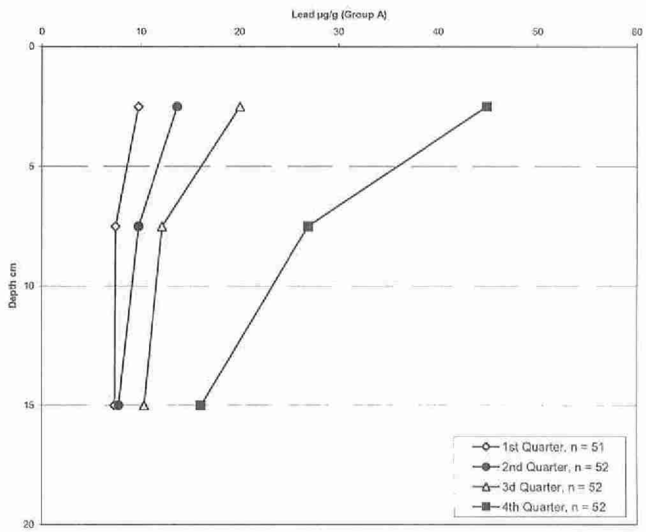

Figure 7.1.2.2: Inner Communities, Pb depth profiles, Group A.

Chromium also showed a visual trend of decreasing concentrations with depth in the second and fourth quarters (1.1 times). The average concentrations in the first and third quarters for chromium showed no observable change with depth.

Concentrations for both selenium and cadmium showed a visual trend of decreasing concentration with depth in the fourth quarter (1.3 to 1.4 times). In the third quarter for selenium, the maximum concentration was observed at the 5 - 10 cm depth. All quarters for both cadmium and selenium were at or near analytical MDLs, therefore these trends should be interpreted with caution. The first and second quarters for arsenic in Group A were also at or near analytical MDLs while the third and fourth quarters showed a visual trend of decreasing concentration with depth (1.4 times).

Average aluminum, iron and vanadium concentrations in Group A showed no observable change with depth in all four quarters. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.2 for graphs of the depth profiles for the elements discussed above.

In the Inner Sudbury Communities, 6% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Nickel, cobalt and lead concentrations, in Group B, showed a strong, visual trend of maximum concentration occurring at 5 - 10 cm in the second half. Average concentrations at 5 - 10 cm were 1.2 to 1.7 times the average concentrations at surface for these elements. This trend was weak in the first half for these elements. Figure 7.1.2.3 depicts the depth profile of lead in Group B for the Inner Sudbury Communities.

Copper, in Group B, showed a strong, visual trend of maximum concentrations (1.6 times) at 5 - 10 cm in the second half and a weak trend of decreasing concentration with depth in the first half. Concentration trends of iron, chromium, zinc, aluminum and vanadium were similar to copper but weaker (1.1 to 1.2 times). Concentrations for selenium and cadmium in both halves, and arsenic concentrations in the first half, were at or near analytical MDLs, therefore no concentration trends were observed. Arsenic concentrations in the second half showed no observable change with depth.

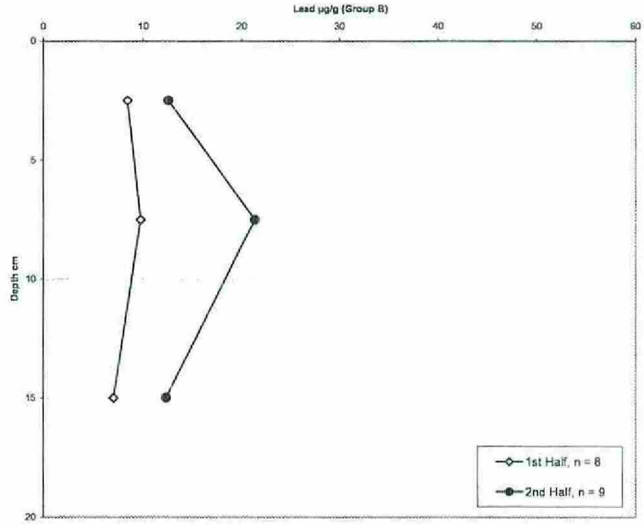

Figure 7.1.2.3: Inner Communities, Pb depth profiles, Group B.

In the Inner Sudbury Communities, 16% of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Nickel, copper, cobalt and lead concentrations, in Group C, showed a strong to weak, visual trend of increasing concentrations with depth in all quarters. Average concentrations at 10 - 20 cm were 1.1 to 2.1 times the average concentrations at surface for these elements. Figure 7.1.2.4 depicts the depth profile of lead in Group C for the Inner Sudbury Communities.

Arsenic showed a similar trend in the second to fourth quarters (1.5 to 2.2 times), however, average concentrations were at or near the analytical MDL in the first quarter.
Chromium, iron, zinc, aluminum and vanadium showed no observable change in average concentrations with depth in the first and second quarter and a weak trend of increasing concentrations with depth in the third and fourth quarters (1.1 to 1.4 times). Concentrations for selenium and cadmium in all quarters were at or near analytical MDLs.

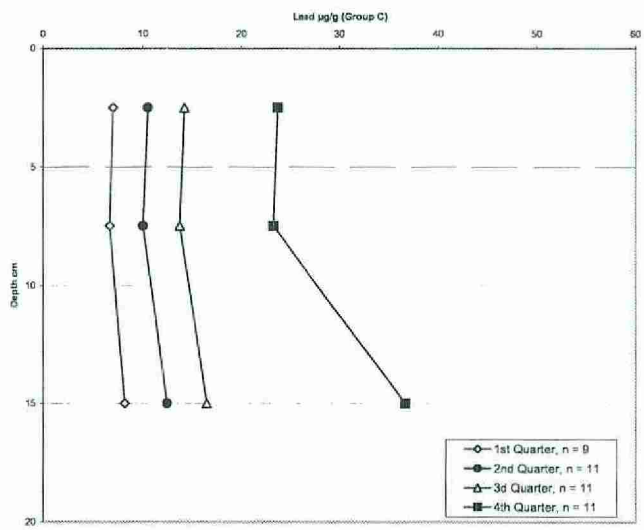

Figure 7.1.2.4: Inner Communities, Pb depth profiles, Group C.

In the Inner Sudbury Communities, 78% of the sampling locations showed a pattern of aerial deposition from surface, compared with only 49% in the Outer Sudbury Communities. Generally, the trend of decreasing concentration with increasing depth was stronger for nickel, copper, lead, and to a lesser degree selenium, cadmium and chromium in the Inner Sudbury Communities. Only 22% of the sampling locations in the Inner Sudbury Communities showed a pattern of maximum concentration occurring below the surface, compared to over 50% of the locations in the Outer Sudbury Communities. This trend was stronger in the Outer Sudbury Communities for barium and zinc, and stronger in the Inner Sudbury Communities for cobalt and arsenic. Refer to Section 10.5.2 for graphs of the depth profiles for the elements discussed above.

Overall, concentrations of nickel, copper, lead, zinc, and to a lesser extent cobalt, in 78% of the sample locations in the Inner Sudbury Communities, showed a strong aerial deposition trend from surface. These sample locations appeared to be unaffected by landscaping practices. The remaining sample locations appeared to be affected by some degree of landscaping practices, although nickel, copper, cobalt and lead concentrations showed strong to weak trends of maximum concentrations below surface. These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. Chromium also showed a weak aerial deposition trend from surface in 78% of the sample locations.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. As discussed above, stations 5037916, a residential backyard in Sudbury East, and 5037939, a residential front yard in Sudbury South, were atypical in that they were higher in concentration for most elements than other properties in the Inner Sudbury Communities. They were therefore not included in the correlations analysis and discussion. Refer to Tables 7.1.2.4 to 7.1.2.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths, and Tables 10.4.2.1 through 10.4.2.3 for the full results of the analysis. In Tables 7.1.2.4 to 7.1.2.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Table 7.1.2.4: Pearson's and Spearman's Correlations for 0 - 5 cm Soil in Inner Sudbury Communities

	Al	Ba	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Sr	V	Zn
Al	1	*0.7*	***0.8***	*0.3*	*0.2*	*0.7*	*0.1*	*0.5*	*0.6*	*0.2*	***0.8***	***0.8***	*0.4*
Ba	**0.8**	1	*0.7*	*0.6*	*0.5*	*0.7*	*0.4*	*0.5*	*0.7*	*0.5*	*0.6*	*0.7*	*0.7*
Cr	**0.8**	0.7	1	*0.5*	*0.3*	***0.8***	*0.3*	*0.6*	*0.7*	*0.4*	*0.6*	***0.8***	*0.5*
Co	0.3	0.5	0.4	1	***0.8***	*0.6*	*0.7*	*0.4*	*0.4*	***0.8***	*0.2*	*0.4*	*0.7*
Cu	0.2	0.5	0.3	**0.8**	1	*0.4*	***0.8***	*0.2*	*0.3*	***1.0***	*0.1*	*0.2*	*0.7*
Fe	0.7	0.7	0.7	0.7	0.5	1	*0.3*	*0.7*	*0.7*	*0.4*	*0.5*	***0.9***	*0.6*
Pb	0.1	0.2	0.4	0.4	0.5	0.2	1	*0.1*	*0.2*	***0.8***	*0.1*	*0.1*	*0.6*
Mg	0.4	0.3	0.4	0.3	0.1	0.5	0.0	1	*0.7*	*0.2*	*0.5*	*0.6*	*0.4*
Mn	0.6	0.6	0.6	0.3	0.2	0.7	0.1	0.5	1	*0.3*	*0.6*	*0.7*	*0.5*
Ni	0.2	0.5	0.4	**0.8**	**0.9**	0.5	0.4	0.2	0.2	1	*0.1*	*0.2*	*0.7*
Sr	0.6	0.5	0.5	0.1	0.1	0.4	0.0	0.6	0.4	0.1	1	*0.7*	*0.3*
V	**0.8**	0.7	**0.8**	0.4	0.2	**0.9**	0.1	0.5	0.7	0.3	0.5	1	*0.5*
Zn	0.4	0.7	0.5	0.6	0.6	0.6	0.4	0.3	0.5	0.6	0.2	0.5	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.2.5: Pearson's and Spearman's Correlations for 5 - 10 cm Soil in Inner Sudbury Communities

	Al	Ba	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Sr	V	Zn
Al	1	**0.8**	**0.8**	0.5	0.4	**0.8**	0.3	0.6	0.7	0.3	**0.8**	**0.9**	0.5
Ba	**0.9**	1	**0.8**	0.7	0.6	**0.8**	0.5	0.6	0.7	0.6	0.7	**0.8**	0.7
Cr	**0.9**	**0.8**	1	0.6	0.3	**0.9**	0.3	**0.8**	**0.8**	0.4	**0.8**	**0.9**	0.6
Co	0.6	0.7	0.7	1	0.7	0.7	0.6	0.6	0.6	0.7	0.4	0.6	0.7
Cu	0.5	0.6	0.5	0.7	1	0.4	**0.8**	0.2	0.3	**0.9**	0.2	0.3	0.7
Fe	**0.9**	**0.8**	**0.8**	0.7	0.5	1	0.3	0.7	**0.8**	0.4	0.7	**0.9**	0.7
Pb	0.1	0.2	0.2	0.2	0.3	0.1	1	0.2	0.3	**0.8**	0.2	0.3	0.7
Mg	0.5	0.5	0.7	0.5	0.2	0.6	0.1	1	**0.8**	0.2	0.6	0.7	0.5
Mn	0.7	0.7	**0.8**	0.6	0.4	**0.8**	0.1	0.6	1	0.3	0.7	**0.8**	0.6
Ni	0.4	0.6	0.4	**0.8**	**0.9**	0.5	0.3	0.2	0.4	1	0.2	0.3	0.7
Sr	**0.8**	0.6	0.7	0.4	0.2	0.6	0.0	0.5	0.7	0.3	1	**0.8**	0.4
V	**0.9**	**0.8**	**0.9**	0.6	0.4	**0.9**	0.1	0.6	**0.8**	0.4	0.7	1	0.6
Zn	0.5	0.7	0.6	0.6	0.6	0.6	0.3	0.4	0.6	0.6	0.4	0.5	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.2.6: Pearson's and Spearman's Correlations for 10 - 20 cm Soil in the Inner Communities

	Al	Ba	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Sr	V	Zn
Al	1	**0.9**	**0.9**	0.7	0.5	**0.9**	0.5	0.6	**0.8**	0.5	**0.8**	**0.9**	0.7
Ba	**0.9**	1	**0.9**	0.7	0.6	**0.9**	0.5	0.7	**0.8**	0.6	**0.8**	**0.8**	**0.8**
Cr	**0.9**	**0.9**	1	0.7	0.4	**0.9**	0.4	**0.8**	**0.9**	0.4	**0.8**	**0.9**	0.7
Co	0.6	0.7	0.6	1	0.7	**0.8**	0.7	0.6	0.7	0.7	0.5	0.7	**0.8**
Cu	0.4	0.5	0.4	**0.8**	1	0.5	**0.8**	0.3	0.4	**0.9**	0.3	0.4	**0.8**
Fe	**0.9**	**0.9**	**0.9**	0.7	0.5	1	0.5	**0.8**	**0.8**	0.5	0.7	**0.9**	**0.8**
Pb	0.2	0.3	0.2	0.4	0.5	0.2	1	0.2	0.4	**0.8**	0.4	0.4	**0.8**
Mg	0.7	0.6	**0.8**	0.5	0.2	**0.8**	0.1	1	**0.8**	0.2	0.7	**0.8**	0.6
Mn	**0.8**	**0.8**	**0.8**	0.6	0.3	**0.8**	0.2	**0.8**	1	0.4	**0.8**	**0.8**	0.7
Ni	0.4	0.5	0.3	**0.8**	**0.9**	0.4	0.4	0.2	0.3	1	0.3	0.4	0.7
Sr	**0.8**	0.7	**0.8**	0.4	0.3	0.7	0.2	0.7	**0.8**	0.3	1	**0.8**	0.6
V	**0.9**	**0.8**	**0.9**	0.6	0.3	**0.9**	0.2	0.7	**0.8**	0.3	**0.8**	1	0.7
Zn	0.6	0.7	0.6	0.7	0.6	0.7	0.5	0.5	0.7	0.6	0.5	0.6	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Of the major elements emitted by the mining and smelting processes in the Sudbury area, in the Inner Sudbury Communities, nickel, copper and cobalt were strongly correlated with each other at the 0 to 5 cm depth using Pearson's and Spearman's. An example of these correlations are presented in Figures 7.1.2.5 and 7.1.2.6 below. Refer to Section 10.4.2 for additional correlation figures. These elements were moderately correlated with zinc in Spearman's. The correlation between nickel, copper and cobalt remained similar at all depth intervals with minor fluctuations in the level of significance for cobalt in both Pearson's and Spearman's.

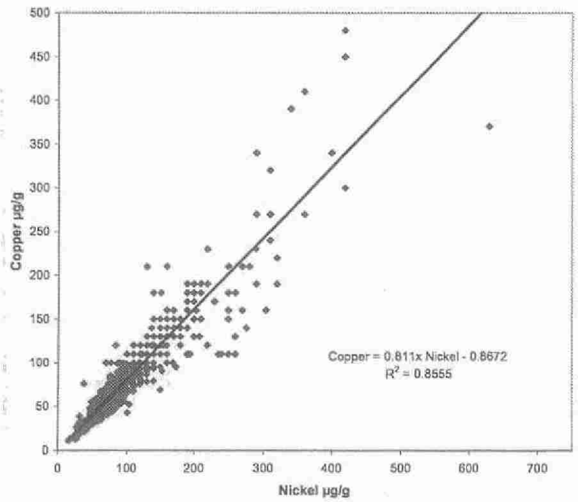

Figure 7.1.2.5: Cu vs. Ni in 0 to 5 cm soil.

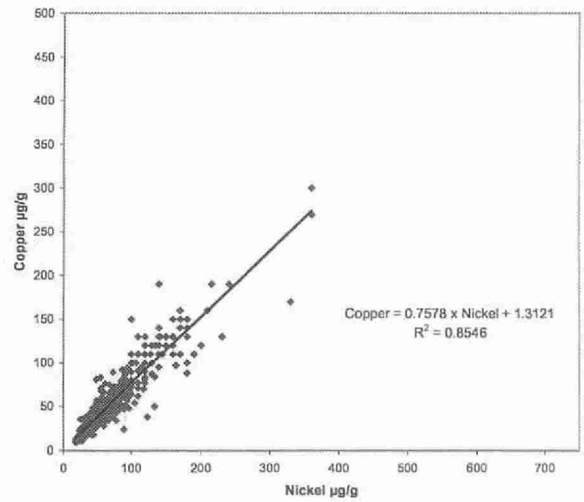

Figure 7.1.2.6: Cu vs Ni in 10 to 20 cm soil.

Unlike in the Outer Sudbury Communities, cobalt was not strongly correlated with the naturally occurring elements (i.e. aluminum, barium etc.) at the surface, while it was strongly correlated with nickel and copper. As the depth increased, the correlations between cobalt and aluminum, barium, chromium, iron, manganese, vanadium and zinc became stronger while the correlations between cobalt, nickel and copper decreased slightly. This indicates that elevated cobalt concentrations at surface in the Inner Sudbury Communities may be attributed to smelter emissions and not to background concentrations.

Lead did not correlate with any elements at any depth using Pearson's. Using Spearman's, however, lead was strongly correlated with nickel and copper, and to a lesser extent cobalt at 0 - 5 cm. The lead correlations with nickel and copper remained strong and constant at all depth intervals. At 5 - 10 cm, lead moderately correlated to zinc, and at 10 - 20 cm, was strongly correlated to zinc and moderately correlated to cobalt.

The difference between the Pearson's and Spearman's correlations can be illustrated using the lead/zinc relationship. As discussed in Section 7.2, Pearson's correlation is used as an indicator of the strength of a linear relationship between two variables. This relationship may be strongly affected by the presence of non normal data or outliers. Spearman's correlation is used as an indicator of the strength of non-linear relationships and reduces the effect of outliers on the relationship. Similar to Spearman's, log - log transformations also reduce the effect of outliers and highly skewed, non normal data on correlations.

At 5 - 10 cm, the presence of two outliers, with high lead concentrations at station 5037913 strongly affected the Pearson's correlation values (R = 0.3) with nickel, copper and zinc while it only marginally affected the Spearman's correlation values (R = 0.7 to 0.8). Arbitrarily removing these outliers would increase the Pearson's correlation value to R = 0.64 for lead and zinc. Refer to Table 7.1.2.5. As shown in Figure 7.1.2.7, the lead and zinc correlation at 5 - 10 cm in the Inner Sudbury Communities using Pearson's appeared to be unduly influenced by the two outliers. The R^2 value was low ($R^2 = 0.09$). Figure 7.1.2.8 depicts the same lead and zinc correlation using Pearson's, however, the data has been log - log transformed. The log - log transformation reduced the effect of the outliers, strengthening the correlation. This is indicated by the increased R^2 value of 0.5 and R value of 0.7.

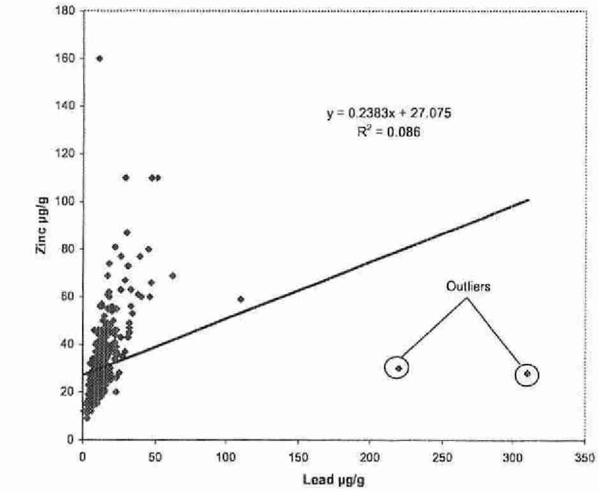

Figure 7.1.2.7: Zn vs Pb, 5 to 10 cm

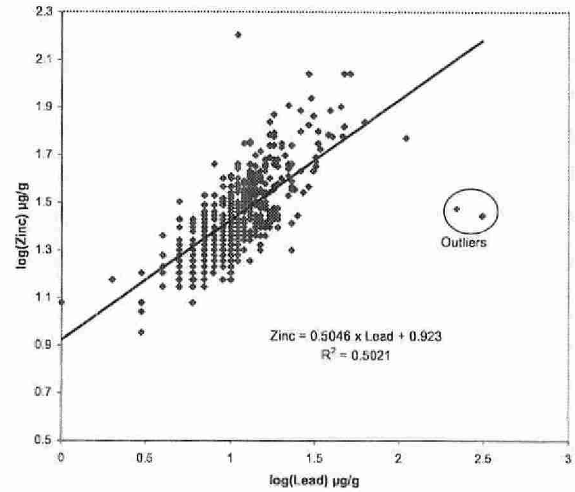

Figure 7.1.2.8: log[Zn] vs log[Pb], 5 to 10 cm

Arsenic was not correlated with any elements at the 0 - 5 or 5 - 10 cm depth intervals using Pearson's or at any depth using Spearman's. Arsenic was moderately correlated in Pearson's with copper and nickel at 10 - 20 cm. These correlations, however, were largely driven by station 5030636. Figures 7.1.2.9 and 7.1.2.10 clearly show the effect of this station on the arsenic and copper correlation.

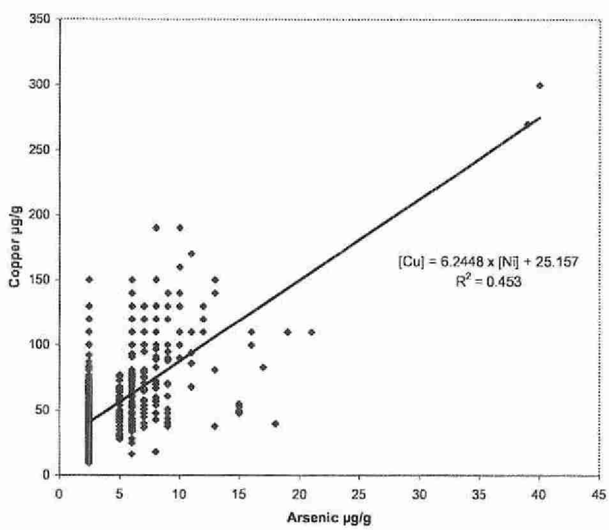

Fig. 7.1.2.9: Cu vs. As, 10-20 cm, Inner Communities

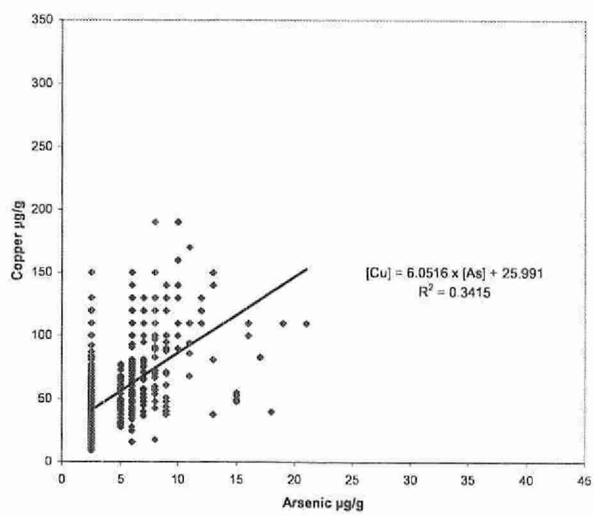

Fig. 7.1.2.10: Cu vs. As, 10-20 cm, Inner Communities without outliers.

Pearson's and Spearman's showed both strong and moderate correlations between aluminum, barium, chromium, iron, magnesium, manganese, strontium, vanadium and zinc at all depths. Overall the number and strength of these correlations increased with depth and were more prevalent using Spearman's. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury and are expected to correlate with one another. The increase in the number and strength of these correlations with depth is indicative of less disturbed soil at depth. Correlations with the naturally occurring elements generally increased with Spearman's at depth and decreased with Pearson's, while the correlations with the elements associated with smelter emissions generally

stay constant with Pearson's at depth and decreased with Spearman's. Refer to Tables 7.1.2.4 to 7.1.2.6.

Of the major elements emitted by the mining and smelting processes in the Sudbury area only nickel and copper were strongly correlated at all depths in the Outer Sudbury Communities. Cobalt concentrations appeared to be naturally occurring and not related to the smelter emissions. In the Inner Sudbury Communities, at all depths, nickel, copper and cobalt remain strongly correlated while lead also becomes strongly correlated with nickel and copper. The correlations between cobalt with nickel and copper became weaker and the correlations between cobalt and the naturally occurring elements became stronger with depth. This indicates that although cobalt concentrations at the surface may be attributed to smelter emissions, concentrations at depth may be also attributed to natural background concentrations. Refer to Figures 10.4.2.1 through 10.4.2.42 for a complete list of graphs showing selected element correlations at all three depths for the Inner Sudbury Communities.

In summary, element concentrations were relatively low in the Inner Sudbury Communities, but higher than the Outer Sudbury Communities. At all depths, nickel and copper concentrations were approximately double the concentrations found in the Outer Sudbury Communities from the median to 80^{th} percentile up. Cobalt, arsenic, lead, barium and selenium concentrations were only slightly higher. Concentrations of nickel, copper, cobalt, arsenic and lead exceeded Table A at one or more depth intervals in the Inner Sudbury Communities. Only nickel, copper and arsenic concentrations exceeded Table A at all depths. Ten elements exceed Table F criteria in the Inner Sudbury Communities.

In the Outer Sudbury Communities the majority of the urban soil sampling locations were school or park properties. In the Inner Sudbury Communities half of the urban soil samples were from residential properties and half were from school or park properties. A concentration gradient was observed for nickel and copper for the 0 - 5 cm soil. Nickel concentrations generally decreased to the south and northwest, and copper concentrations decrease in all directions with respect to Copper Cliff. This trend continues into the Outer Sudbury Communities.

Overall, concentrations of nickel, copper, lead, zinc, and to a lesser extent cobalt and chromium, showed a strong aerial deposition trend from surface in 78% of the sample locations in the Inner Sudbury Communities. The remaining sample locations appeared to be affected to some degree by landscaping practices, although nickel, copper, cobalt and lead concentrations showed strong to weak trends of maximum concentrations below surface. These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time.

In the Inner Sudbury Communities, nickel, copper, and cobalt were strongly correlated with each other at all depths using Pearson's and Spearman's. These elements were moderately correlated with zinc at the surface, and strongly correlated with lead at all depths using Spearman's. Unlike in the Outer Sudbury Communities, cobalt was not strongly correlated with the naturally occurring elements (i.e. aluminum, barium etc.) at the surface, while it was strongly correlated with nickel and copper. With depth, the correlations between cobalt with nickel and copper became weaker and the correlations between cobalt and the naturally occurring elements became stronger. This indicates that although cobalt concentrations at the surface may be attributed to smelter emissions, concentrations at depth may also be due to natural background concentrations.

7.1.3 Sudbury Core

In the Sudbury Core, defined as being west of Notre Dame and north of Lorne and York Streets and included the neighbourhoods of Flour Mill, Gatchell, Little Britain and Northern Heights, the concentrations of the eleven elements, at 0 - 5 cm, used in determining this grouping were substantially higher than in both Outer and Inner Sudbury Communities, but were similar to Coniston. The similarities and differences between the Sudbury Core and Coniston will be discussed in the next section.

At 0 - 5 cm in the Sudbury Core, nickel, copper, cobalt, arsenic, barium, lead, cadmium, selenium, and zinc concentrations were substantially higher than in the Outer and Inner Sudbury Communities from the median to the 95th percentile. Chromium and iron were similar to marginally higher at the 75th percentile at 0 - 5 cm and 5 - 10 cm, and similar at 10 - 20 cm. Refer to Table 7.1.3.1.

Table 7.1.3.1: Summary Statistics for Metals and Arsenic in Urban Soil of the Sudbury Core of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Sudbury Core, n = 324																			
Minimum	4000	0.4	2.5	17	0.4	1500	19	4	17	9000	1	1500	110	0.75	20	0.5	13	20	13
10th percentile	7500	0.4	2.5	31	0.4	3230	25	6	56	12000	9	2200	150	0.75	69	0.5	23	24	24
1st quartile	8400	0.4	2.5	37	0.4	4000	28	8	99	13000	17	2600	170	0.75	111	0.5	29	26	33
Median	9900	0.4	6.0	49	0.4	5100	32	11	190	15000	29	3000	200	0.75	200	1.0	37	29	47
3rd quartile	12000	0.4	10	72	1.0	6950	39	17	365	18000	65	3600	230	0.75	350	2.0	43	32	86
95th percentile	14000	1.0	20	119	1.9	11000	53	35	84	24850	140	5285	300	0.75	935	4.0	51	37	159
Maximum	20000	2.7	34	210	4.1	16000	110	75	16	36000	320	9800	1200	3.2	2000	9.0	84	42	230
Mean	10095	0.5	8.0	58	0.7	5753	35	15	28	16240	47	3223	210	0.77	294	1.4	36	30	64
CV (std. dev./mean)	23%	52%	75%	49%	81%	44%	31%	70%	95	26%	99%	32%	40%	22%	99%	90%	28%	15%	67%
Skewness	0.5	5.1	1.9	1.5	2.3	1.2	2.5	2.3	2.1	1.5	2.2	2.1	7.0	11.6	2.5	2.3	0.4	0.4	1.3
5 to 10 cm Urban Soil in the Sudbury Core, n = 273																			
Minimum	4400	0.4	2.5	17	0.4	1500	17	3	12	9400	2	1400	110	0.75	18	0.5	10	20	12
10th percentile	7600	0.4	2.5	28	0.4	2600	23	6	45	12000	9	2020	140	0.75	58	0.5	22	24	21
1st quartile	8800	0.4	5.0	37	0.4	3300	27	7	75	13000	13	2300	160	0.75	90	0.5	28	27	29
Median	10000	0.4	7.0	54	0.4	4300	31	10	130	15000	21	2700	200	0.75	170	1.0	35	30	41
3rd quartile	12000	0.4	11	70	0.4	5800	37	13	245	18000	45	3250	230	0.75	280	1.0	42	34	74
95th percentile	15000	0.9	18	110	1.0	8490	50	19	425	21000	110	4345	300	0.75	480	2.0	49	40	120
Maximum	20000	1.5	24	160	1.5	14000	59	36	830	26000	310	7200	480	2.40	970	5.0	71	46	210
Mean	10587	0.4	8	58	0.5	4761	32	11	174	15633	37	2915	202	0.77	202	1.1	35	30	55
CV (std. dev./mean)	26%	41%	59%	48%	46%	45%	26%	45%	77%	20%	106	32%	27%	20%	75%	67%	28%	16%	68%
Skewness	0.9	3.9	0.9	1.2	3.1	1.5	0.9	1.5	1.7	0.6	2.7	1.7	1.2	8.2	1.7	1.7	0.2	0.6	1.6
10 to 20 cm Urban Soil in the Sudbury Core, n = 271																			
Minimum	4700	0.4	2.5	17	0.4	1400	18	3	11	9000	2	1300	110	0.75	15	0.5	11	19	10
10th percentile	6900	0.4	2.5	32	0.4	2300	21	6	42	12000	8	2000	140	0.75	57	0.5	20	24	21
1st quartile	8050	0.4	5	39	0.4	2900	25	7	58	13000	11	2300	160	0.75	77	0.5	27	26	28
Median	10000	0.4	6.0	51	0.4	3900	29	9	100	15000	21	2700	190	0.75	130	1.0	34	29	39
3rd quartile	12000	0.4	9.0	71	0.4	5500	36	11	170	17000	38	3400	230	0.75	210	1.0	42	33	61
95th percentile	17000	1.0	15	130	0.4	8500	50	16	350	22000	120	5700	320	0.75	405	2.0	52	41	125
Maximum	22000	2.8	22	240	1.3	13000	64	28	530	28000	470	8300	390	2.90	820	4.0	66	50	340
Mean	10465	0.5	7.1	61	0.4	4451	31	9	132	15397	34	3013	201	0.77	163	0.9	34	30	51
CV (std. dev./mean)	32%	53%	57%	57%	31%	48%	29%	40%	77%	23%	132	38%	29%	21%	75%	68%	31%	20%	75%
Skewness	1.2	5.4	1.3	1.9	4.6	1.4	1.2	1.6	1.8	1.0	4.7	1.9	1.1	10.3	2.2	2.4	0.2	1.0	2.9

All results are in µg/g dry weight.

At 10 - 20 cm, nickel, copper, lead and zinc concentrations remained higher in the Sudbury Core than in the Outer and Inner Sudbury Communities. Arsenic and barium concentrations were also higher in the Sudbury Core compared to the Outer Sudbury Communities, but only marginally

higher compared to the Inner Sudbury Communities. At this depth, cobalt and selenium concentrations were only marginally higher than both the Outer and Inner Sudbury Communities. Cadmium, chromium and iron concentrations were similar in all three communities at the 10 - 20 cm depth. All other elements in the Sudbury Core were essentially the same as the Outer and Inner Sudbury Communities at all depths.

In the Sudbury Core, concentrations of nickel, copper, cobalt, arsenic and lead were higher in the residential properties than in the park and school properties. Due to the low n-values for school properties at all depths, comparisons with this group are very general. The n-value for schools was 45 out of a total of 324 urban soil samples at 0 - 5 cm, and 11 out of 271 samples at depth. At all depth intervals, concentrations of nickel, copper and lead were generally two to three times higher in the residences from the minimum to 20th percentile. Cobalt and arsenic were up to twice as high in residential properties from the 20th to 90th percentile. Refer to Table 7.1.3.2.

Table 7.1.3.2: Summary Statistics for Metals and Arsenic in All 0 to 5 cm Urban Soil Samples from the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 184															
Minimum	5900	0.4	2.5	25	0.4	1500	20	4	28	11000	7	1500	120	0.75	33	0.5	15	20	17
10th percentile	7730	0.4	5.0	34	0.4	3330	26	8	113	13000	18	2200	150	0.75	123	0.5	23	24	34
1st quartile	8600	0.4	6.0	46	0.4	4000	29	11	200	14000	31	2500	170	0.75	195	1.0	28	27	46
Median	10000	0.4	9.0	60	0.9	5150	34	15	315	17000	50	2900	200	0.75	300	1.5	37	29	74
3rd quartile	12000	0.4	13	86	1.3	6750	42	21	475	19000	86	3500	230	0.75	465	2.0	43	33	110
95th percentile	14000	1.1	21	120	2.2	10850	56	44	920	27000	160	4400	300	0.75	1043	4.8	49	38	179
Maximum	17000	2.7	34	210	4.1	15000	110	75	1600	36000	320	6000	1200	3.20	2000	9.0	84	42	230
Mean	10316	0.5	10	68	1.0	5730	37	18	392	17386	67	3039	216	0.78	400	1.9	37	30	84
CV (std. dev./mean)	21%	60%	58%	44%	74%	42%	34%	63%	75%	26%	78%	25%	48%	28%	81%	76%	29%	15%	55%
Skewness	0.4	4.2	1.6	1.1	1.6	1.1	2.2	1.9	1.7	1.3	1.8	0.9	6.4	8.7	2.0	2.0	0.5	0.3	0.8
Schools and Daycares 0 to 5 cm					n = 45														
Minimum	5800	0.4	2.5	21	0.4	2400	21	4	19	9000	3	1900	110	0.75	20	0.5	20	21	17
10th percentile	7020	0.4	2.5	28	0.4	3080	25	5	27	11000	6	2100	150	0.75	38	0.5	23	25	18
1st quartile	7950	0.4	2.5	32	0.4	3500	26	7	50	12000	8	2300	170	0.75	63	0.5	27	27	22
Median	8700	0.4	2.5	37	0.4	4000	29	8	92	13000	16	3000	180	0.75	110	0.5	32	28	31
3rd quartile	9600	0.4	6.0	43	0.4	5650	32	9	150	14000	22	3400	200	0.75	160	0.5	35	29	39
95th percentile	11000	0.4	8.8	52	0.7	8720	39	21	496	18800	69	4480	228	0.75	376	3.0	41	33	91
Maximum	12000	0.4	14	53	1.3	11000	51	28	530	21000	75	5800	270	0.75	660	4.0	52	37	130
Mean	8691	0.4	4.5	37	0.4	4707	30	9	129	13373	20	3007	184	0.75	140	0.9	32	28	37
CV (std. dev./mean)	16%	0%	65%	20%	43%	41%	19%	55%	101%	18%	92%	29%	16%	0%	91%	97%	21%	10%	62%
Skewness	0.1		1.6	0.2	4.1	1.6	1.8	2.4	2.2	1.3	2.1	1.2	0.3		2.4	2.5	0.6	0.5	2.4
Parks 0 to 5 cm				n = 95															
Minimum	4000	0.4	2.5	17	0.4	2100	19	5	17	9900	1	2000	110	0.75	24	0.5	13	21	13
10th percentile	7580	0.4	2.5	27	0.4	3040	24	6	48	12000	8	2380	150	0.75	60	0.5	27	24	21
1st quartile	8600	0.4	2.5	35	0.4	4500	27	7	70	13000	12	2900	170	0.75	83	0.5	31	26	26
Median	10000	0.4	2.5	44	0.4	5600	31	10	110	15000	20	3200	210	0.75	130	0.5	37	29	37
3rd quartile	12000	0.4	6.0	55	0.4	7850	36	12	160	17000	26	3950	250	0.75	195	1.0	46	34	46
95th percentile	15000	0.4	8.0	74	0.9	11000	45	17	240	20000	41	6230	293	0.75	290	2.0	52	37	67
Maximum	20000	1.5	32	120	1.7	16000	50	55	950	30000	101	9800	310	0.75	1528	3.5	60	40	140
Mean	10334	0.4	4.7	46	0.5	6293	32	11	134	15378	21	3683	210	0.75	162	0.8	38	30	38
CV (std. dev./mean)	27%	35%	89%	39%	46%	44%	22%	60%	85%	20%	65%	38%	24%	0%	106%	70%	25%	15%	47%
Skewness	0.3	6.0	4.6	1.5	3.4	1.1	0.4	4.4	4.6	1.6	2.5	1.9	0.2		5.9	2.9	-0.2	0.3	2.4

All results are in µg/g dry weight.

Generally, the concentrations in the parks were similar for cobalt and arsenic, and only marginally higher for nickel, copper and lead compared to the schools starting from the 10th to 80th percentile at 0 - 5 cm and 5 - 10 cm. The maximum concentrations in the parks at 0 - 5 cm were approximately

twice the concentrations in the schools for all 5 elements. At 10 - 20 cm, concentrations in the parks were only marginally higher than the schools for nickel, cobalt, arsenic and lead from the 20th to 95th percentile.

Concentrations of barium, selenium and zinc in the residential properties at all depths were marginally higher than in the parks from the minimum to median percentile, and marginally higher for cadmium from the 60th to 95th percentile.

Generally, surface soil park concentrations for nickel, copper, cobalt, and lead were substantially to marginally higher in the Sudbury Core compared to the Inner Sudbury Communities, while arsenic concentrations were similar. With depth, however, park concentrations were marginally higher or lower for all 5 elements compared to the Inner Sudbury Communities. At surface, school concentrations for nickel and copper were marginally higher compared to the Inner Sudbury Communities, while cobalt and lead concentrations were generally similar with lower maximum values. With depth, nickel, copper and lead were marginally higher compared to the Inner Sudbury Communities.

There were considerably more exceedences of Table F and A in the Sudbury Core than the Outer and Inner Sudbury Communities. Table 7.1.3.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria in the Sudbury Core. Nickel, copper, arsenic and lead concentrations exceeded Table A at all depths. Cobalt concentrations exceeded Table A only at 0 - 5 cm. No other elements exceeded Table A at any depths in the Sudbury Core. At 0 - 5 cm, 43% of the urban soil samples exceeded Table A and 80% exceeded Table F for copper. At the same depth 63% of the samples exceeded Table A and 96% exceed Table F for nickel. Generally, the number of exceedences of Table F and A decreased with depth. The number of nickel, copper and selenium exceedences, however, did not decrease as quickly.

Table 7.1.3.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in Urban Soil Samples in the Sudbury Core of the City of Greater Sudbury.

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	13 (4%)	10 (4%)	10 (4%)	0	0	0
Arsenic	24 (7%)	16 (6%)	9 (3%)	12 (4%)	3 (1%)	3 (1%)
Barium	0	0	2 (1%)	0	0	0
Cadmium	71 (22%)	14 (5%)	3 (1%)	0	0	0
Chromium	4 (1%)	0	0	0	0	0
Cobalt	48 (15%)	9 (3%)	5 (2%)	14 (4%)	0	0
Copper	260 (80%)	189 (69%)	163 (60%)	139 (43%)	79 (29%)	37 (14%)
Lead	25 (8%)	15 (5%)	11 (4%)	4 (1%)	2 (1%)	4 (1%)
Molybdenum	1	0	1	0	0	0
Nickel	310 (96%)	258 (95%)	260 (96%)	205 (63%)	146 (53%)	112 (41%)
Selenium	102 (31%)	64 (23%)	33 (12%)	0	0	0
Zinc	12 (4%)	6 (2%)	6 (2%)	0	0	0
No. of Samples	324	273	271	324	273	271

Spatial distribution of the chemical concentrations in the Sudbury Core were assessed using concentration dot maps. Concentration dot maps were created for nickel, copper, cobalt, arsenic,

lead, cadmium, selenium, zinc, chromium and iron at the 0 - 5 cm and 10 - 20 cm soil depths. The highest concentrations of nickel, copper, cobalt, lead and arsenic in 0 - 5 cm urban soil occurred in the neighbourhoods of Gatchell and Little Britain and to a lesser degree at the northwest corner of Ramsey Lake. Gatchell and Little Britain are located directly east of the Inco slag disposal area. The concentrations of these elements generally decreased to the northeast and east. Concentrations of cadmium, selenium, zinc, chromium and iron were only slightly higher in Gatchell and / or Little Britain.

At 10 - 20 cm nickel and copper concentrations decreased but generally remained above Table A in Gatchell and Little Britain and to a lesser degree at the northwest corner of Ramsey Lake. The decrease in nickel and copper concentrations with depth was more pronounced in Little Britain than the other two areas. Concentrations of the other eight elements decreased with depth, however, maintained a spatial distribution similar to the surface, with the exception of cadmium which showed no concentration gradient at depth. For an example of the spatial distributions for nickel in the 0 - 5 and 10 - 20 cm soil depths, refer to Figures 7.1.3.1 and 7.1.3.2. Refer to Section 10.2.4 for concentration dot maps of these ten elements at 0 to 5 cm and 10 - 20 cm in the Sudbury Core.

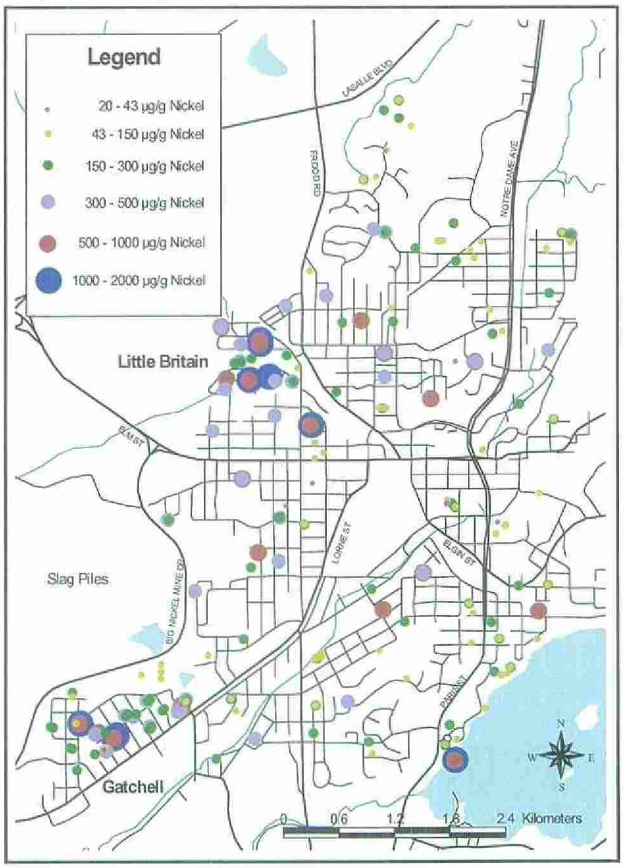

Figure 7.1.3.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury Core

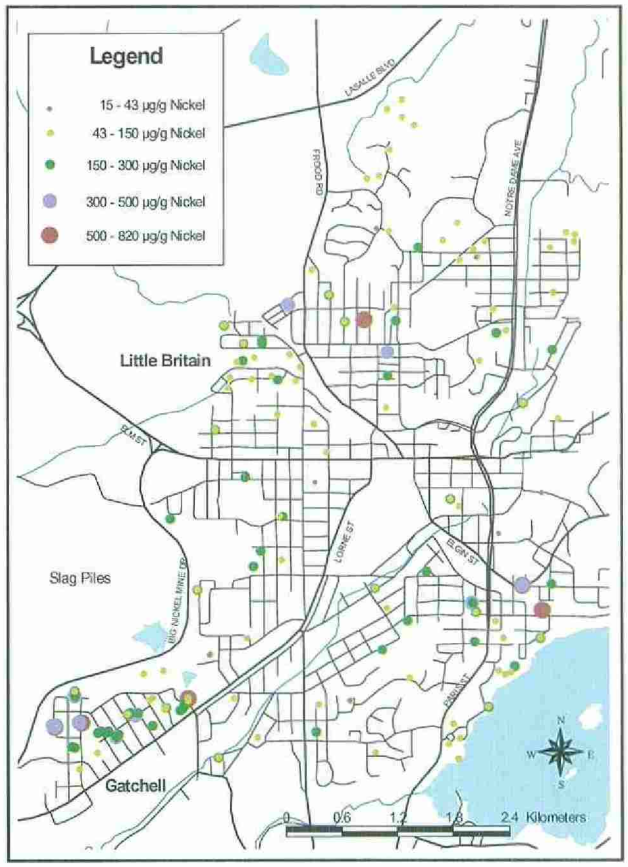

Figure 7.1.3.2: Ni concentrations in urban 10 - 20 cm soil in Sudbury Core

In the Sudbury Core, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Seventy-two percent of the sample locations exhibited a trend of decreasing concentrations with increasing depth, consistent with Group A. Nickel, copper and cobalt concentrations, in Group A, showed a strong visual trend of decreasing concentration with depth in

the third and fourth quarters. These elements also showed a weaker visual trend in the first and second quarters. Average concentrations for these elements at the surface were 1.2 to 2.0 times greater than the concentrations at 10 - 20 cm in the first and second quarters, and 1.8 to 4.3 times greater in the third and fourth quarters. Concentrations of lead, chromium and zinc also showed a weak visual trend of decreasing concentrations with depth in all quarters (1.1 to 2.0 times). Generally the trends for these elements were weaker in the first quarters and strongest in the last. Figure 7.1.3.3 depicts the depth profile of cobalt in Group A for the Sudbury Core.

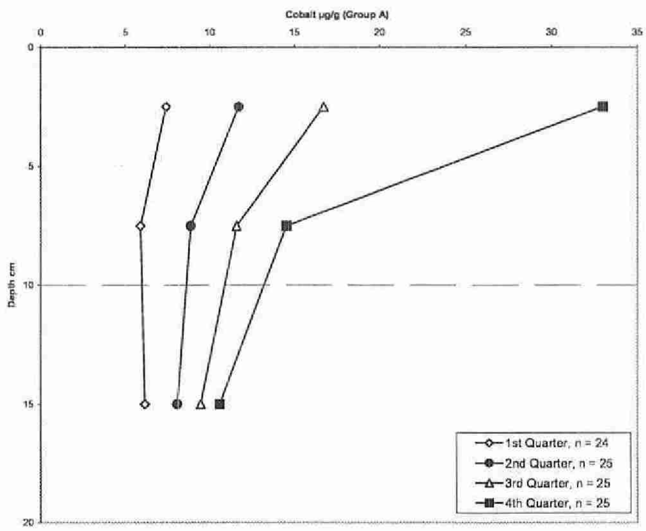

Figure 7.1.3.3: Sudbury Core, Co depth profiles, Group A

Arsenic and iron concentrations showed a weak visual trend of aerial deposition in the third and fourth quarters (1.1 to 1.9 times). The average concentrations of these elements in the first and second quarters showed no observable change with depth. Concentrations for both selenium and cadmium showed a visual trend of decreasing concentration with depth in the fourth quarters (2.5 to 3.8 times), and a weaker trend (1.9 to 2.2 times) in the third quarter. The concentrations in the first through third quarters for cadmium and selenium, and the first quarter for arsenic, were at or near analytical MDLs. As a result, the concentration trends observed in these quarters should be interpreted with caution.

Average aluminum and vanadium concentrations in Group A showed no observable change with depth in all four quarters. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.3 for graphs of the depth profiles for the elements discussed above.

In the Sudbury Core, 12% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Nickel, copper, cobalt, lead, selenium, zinc, iron and vanadium concentrations, in Group B, showed a visual trend of maximum concentration occurring at 5 - 10 cm in the second half. Average concentrations at 5 - 10 cm were 1.1 to 1.3 times the average concentrations at surface for these elements. This trend was also observed in the first half for nickel and cobalt, but concentrations were only 1.1 times greater at 5 - 10 cm than the surface. Generally, a weak trend of decreasing concentration with depth was observed in the first half for copper, lead, selenium, zinc and iron. No observable change in concentration with depth was observed in the first half for vanadium. Selenium concentrations in the first half were at or near analytical MDLs, and should be interpreted with caution. Figure 7.1.3.4 depicts the depth profile of cobalt in Group B for the Sudbury Core.

Concentrations for cadmium in both halves, and arsenic concentrations in the first half, were at or near analytical MDLs, and no concentration trends were observed. Arsenic concentrations in the second half showed a pattern of maximum concentrations occurring at 5 - 10 cm with slightly lower concentrations at surface, and much lower concentrations at 10 - 20 cm. For chromium, in both halves, maximum concentrations were observed at 5 - 10 cm, with only slightly lower concentrations

at surface, but much lower concentrations at 10 - 20 cm. In both halves for aluminum, no concentration change with depth was observed.

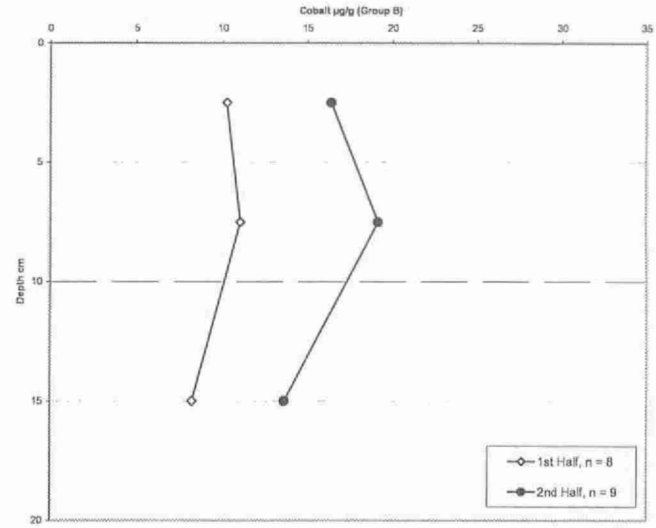

Figure 7.1.3.4: Sudbury Core, Co depth profiles, Group B

In the Sudbury Core, 16% of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Concentrations of nickel, copper, cobalt, lead, and to a lesser degree iron showed a strong visual trend of increasing concentrations with depth in the second half, and a similar but weaker trend in the first half. Average concentrations of nickel, copper, cobalt and lead at the 10 - 20 cm soil depth were 1.5 to 2.0 times the average concentrations observed at surface in the second half, and only 1.2 to 1.3 times greater in the first half. Iron concentrations in both halves showed a similar but weak trend, and were 1.1 to 1.2 times greater at 10 - 20 cm than at surface. Figure 7.1.3.5 depicts the depth profile of cobalt in Group C for the Sudbury Core.

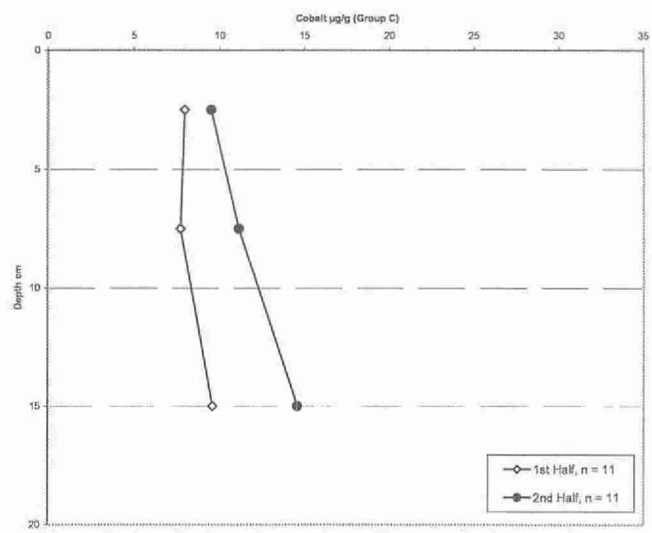

Figure 7.1.3.5: Sudbury Core, Co depth profiles, Group C

Chromium, zinc, aluminum and vanadium concentrations showed a weak pattern of decreasing concentration with increasing depth in the first half, typical of Group A. In the second half, however, these elements showed a trend of increasing concentration with increasing depth, consistent with Group C. The concentrations at 10 - 20 cm, in the second half for these elements was 1.1 to 1.5 times the concentration at the surface.

Concentrations for cadmium in both halves, and arsenic and selenium in the second halves only were at or near analytical MDLs, and there was no observable change with depth. In the second half, arsenic concentrations showed a pattern of increasing concentration with depth (1.2 times), and selenium showed no concentration change with depth. Refer to Section 10.5.3 for graphs of the depth profiles for the elements discussed above.

Overall, nickel, copper, cobalt, lead, chromium and zinc concentrations in 72% of the sample locations in the Sudbury Core showed a strong aerial deposition trend from the surface. Arsenic, selenium, cadmium and iron also showed a weaker aerial deposition trend from surface in these sample locations. These locations appeared to be unaffected by landscaping practices. The remaining sample locations appeared to be affected to some degree by landscaping practices, and nickel, copper, cobalt, lead, selenium, zinc, iron and vanadium concentrations showed strong to weak trends of maximum concentrations below surface. These elevated concentrations may still be attributed

to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil.

In the Outer and Inner Sudbury Communities, only nickel, copper, and lead showed a strong trend of aerial deposition in all quarters, while in the Sudbury Core a strong aerial deposition trend was observed for cobalt as well. Weak trends of aerial deposition were observed in the third and/or fourth quarters for zinc, iron, chromium, selenium and cadmium in the Outer and Inner Sudbury Communities. The trends for chromium, selenium and cadmium were approximately twice as strong in the Sudbury Core, and the trends for iron and zinc were only slightly stronger. In the Sudbury Core, arsenic concentrations also showed a weak to strong trend of aerial deposition in the third and fourth quarters.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Tables 7.1.3.4 to 7.1.3.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths, and Tables 10.4.3.1 through 10.4.3.3 for the full results of the analysis. In Tables 7.1.3.4 to 7.1.3.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Table 7.1.3.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in the Sudbury Core

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.3*	*0.7*	*0.3*	*0.7*	*0.3*	*0.3*	*0.6*	*0.3*	*0.5*	*0.7*	*0.3*	*0.2*	***0.9***	***0.8***	*0.4*
As	0.3	1	*0.6*	*0.7*	*0.4*	***0.8***	***0.8***	*0.7*	***0.8***	*0.1*	*0.3*	***0.9***	*0.7*	*0.2*	*0.3*	***0.8***
Ba	0.6	0.6	1	*0.7*	***0.8***	*0.7*	*0.7*	***0.8***	***0.8***	*0.5*	*0.7*	*0.7*	*0.5*	*0.6*	*0.6*	***0.8***
Cd	0.3	**0.8**	0.7	1	*0.5*	***0.8***	*0.7*	*0.6*	*0.7*	*0.2*	*0.4*	***0.8***	*0.6*	*0.3*	*0.3*	*0.7*
Cr	0.5	0.5	0.6	0.6	1	*0.6*	*0.5*	***0.8***	*0.5*	*0.6*	*0.7*	*0.5*	*0.4*	*0.6*	*0.7*	*0.6*
Co	0.3	**0.9**	0.7	**0.9**	0.5	1	***0.9***	***0.8***	***0.9***	*0.3*	*0.4*	***1.0***	*0.7*	*0.2*	*0.3*	***0.8***
Cu	0.3	**0.8**	0.7	**0.8**	0.5	**0.9**	1	*0.7*	***0.9***	*0.1*	*0.3*	***1.0***	*0.7*	*0.1*	*0.2*	***0.8***
Fe	0.6	**0.8**	**0.8**	0.7	0.6	**0.9**	**0.8**	1	*0.7*	*0.5*	*0.6*	*0.7*	*0.5*	*0.5*	*0.7*	*0.7*
Pb	0.2	0.7	0.7	0.7	0.4	0.7	**0.8**	0.6	1	*0.1*	*0.3*	***0.9***	*0.7*	*0.2*	*0.2*	***0.9***
Mg	0.5	0.0	0.3	0.1	0.3	0.1	0.1	0.3	0.0	1	*0.6*	*0.2*	*0.0*	*0.6*	*0.6*	*0.3*
Mn	0.4	0.2	0.6	0.3	0.3	0.2	0.2	0.4	0.2	0.3	1	*0.3*	*0.2*	*0.7*	***0.8***	*0.4*
Ni	0.3	**0.9**	0.7	**0.9**	0.5	**1.0**	**1.0**	**0.8**	0.7	0.1	0.2	1	*0.7*	*0.2*	*0.2*	***0.8***
Se	0.2	0.6	0.5	0.6	0.4	0.6	0.7	0.6	0.6	0.0	0.1	0.6	1	*0.1*	*0.2*	*0.7*
Sr	**0.8**	0.2	0.6	0.2	0.4	0.2	0.1	0.4	0.2	0.5	0.6	0.2	0.1	1	***0.8***	*0.3*
V	**0.8**	0.3	0.6	0.3	0.5	0.3	0.3	0.6	0.2	0.5	0.5	0.3	0.2	0.7	1	*0.4*
Zn	0.3	0.6	**0.8**	0.7	0.5	0.7	0.7	0.6	**0.8**	0.1	0.4	0.7	0.6	0.3	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.3.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in the Sudbury Core

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	0.2	0.6	0.1	**0.8**	0.3	0.1	0.7	0.1	0.6	0.7	0.2	0.0	**0.8**	**0.9**	0.3
As	0.2	1	0.6	0.4	0.3	**0.8**	**0.9**	0.5	**0.8**	0.1	0.3	**0.9**	0.6	0.1	0.2	**0.7**
Ba	0.6	0.6	1	0.4	0.7	**0.8**	0.7	**0.8**	0.7	0.5	0.7	0.7	0.5	0.5	0.6	**0.8**
Cd	0.1	0.5	0.4	1	0.3	0.4	0.4	0.3	0.4	0.1	0.2	0.4	0.4	0.2	0.1	0.4
Cr	0.7	0.3	0.6	0.3	1	0.5	0.4	**0.8**	0.3	**0.8**	**0.8**	0.4	0.2	0.7	**0.8**	0.5
Co	0.3	**0.8**	0.7	0.5	0.4	1	**0.9**	0.7	**0.8**	0.5	0.5	**0.9**	0.5	0.2	0.4	**0.8**
Cu	0.2	**0.8**	0.7	0.5	0.3	**0.9**	1	0.6	**0.8**	0.2	0.3	**1.0**	0.6	0.1	0.2	**0.8**
Fe	**0.8**	0.5	0.7	0.3	**0.8**	0.7	0.6	1	0.5	0.7	0.7	0.6	0.4	0.6	**0.8**	0.6
Pb	0.1	0.6	0.7	0.5	0.2	0.6	0.7	0.4	1	0.2	0.3	**0.8**	0.6	0.1	0.1	**0.9**
Mg	0.7	0.0	0.4	0.0	0.7	0.3	0.1	0.7	0.0	1	**0.8**	0.2	0.0	0.6	0.7	0.3
Mn	0.7	0.2	0.6	0.2	0.7	0.4	0.2	0.7	0.2	0.7	1	0.3	0.2	0.7	**0.8**	0.5
Ni	0.2	**0.8**	0.7	0.5	0.3	**0.9**	**1.0**	0.6	0.6	0.1	0.2	1	0.6	0.1	0.2	**0.8**
Se	0.1	0.7	0.5	0.5	0.3	0.6	0.7	0.4	0.6	0.0	0.2	0.7	1	0.1	0.1	0.5
Sr	**0.8**	0.1	0.6	0.2	0.7	0.2	0.1	0.6	0.2	0.6	0.7	0.2	0.1	1	**0.8**	0.3
V	**0.9**	0.2	0.5	0.1	**0.8**	0.3	0.1	**0.8**	0.0	0.7	0.7	0.2	0.1	**0.8**	1	0.3
Zn	0.2	0.7	**0.8**	0.5	0.3	0.7	0.7	0.5	**0.8**	0.1	0.4	0.7	0.5	0.3	0.2	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.3.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in the Sudbury Core

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	0.3	0.7	0.1	**0.9**	0.4	0.2	**0.9**	0.2	0.6	**0.8**	0.2	0.2	**0.8**	**0.9**	0.3
As	0.2	1	0.6	0.3	0.3	0.6	**0.9**	0.4	0.7	0.0	0.3	**0.8**	0.5	0.2	0.2	**0.8**
Ba	0.6	0.6	1	0.3	0.7	0.7	0.6	**0.8**	0.6	0.5	0.7	0.6	0.3	0.7	0.7	0.7
Cd	0.1	0.4	0.4	1	0.2	0.3	0.3	0.2	0.3	0.0	0.2	0.3	0.3	0.2	0.1	0.3
Cr	**0.9**	0.3	0.6	0.2	1	0.5	0.3	**0.9**	0.2	**0.8**	**0.8**	0.3	0.2	**0.8**	**0.9**	0.4
Co	0.3	0.7	0.7	0.6	0.5	1	**0.8**	0.7	0.7	0.5	0.6	**0.8**	0.3	0.4	0.5	0.7
Cu	0.2	**0.8**	0.6	0.5	0.3	**0.8**	1	0.5	**0.8**	0.1	0.4	**1.0**	0.4	0.2	0.2	**0.9**
Fe	**0.9**	0.5	0.7	0.3	**0.9**	0.6	0.4	1	0.3	0.7	**0.8**	0.4	0.3	0.7	**0.9**	0.5
Pb	0.1	0.6	0.7	0.5	0.2	0.5	0.5	0.2	1	0.0	0.3	**0.8**	0.3	0.2	0.1	**0.9**
Mg	0.7	0.0	0.4	0.0	**0.8**	0.3	0.0	0.7	0.0	1	0.7	0.1	0.1	0.6	0.7	0.2
Mn	**0.8**	0.3	0.7	0.3	**0.9**	0.5	0.3	**0.8**	0.3	0.7	1	0.4	0.2	**0.8**	**0.8**	0.5
Ni	0.2	**0.8**	0.6	0.6	0.3	**0.9**	**1.0**	0.4	0.5	0.0	0.3	1	0.4	0.2	0.2	**0.8**
Se	0.2	0.6	0.3	0.4	0.2	0.5	0.7	0.4	0.4	0.1	0.2	0.6	1	0.1	0.2	0.4
Sr	**0.8**	0.2	0.7	0.2	**0.8**	0.4	0.2	0.7	0.3	0.6	0.7	0.3	0.1	1	**0.8**	0.3
V	**0.9**	0.2	0.6	0.1	**0.9**	0.4	0.2	**0.9**	0.1	**0.8**	**0.8**	0.2	0.2	**0.8**	1	0.3
Zn	0.2	0.7	**0.8**	0.6	0.3	0.6	0.7	0.3	**0.9**	0.0	0.4	0.7	0.4	0.4	0.2	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

In the Sudbury Core, at 0 - 5 cm, nickel, copper, cobalt, arsenic, cadmium and iron are strongly correlated with each other using Pearson's, and strongly or moderately using Spearman's. Lead and zinc moderately correlate with these elements using Pearson's, however, were strongly correlated with these elements using Spearman's. An example of the nickel vs arsenic and nickel vs cadmium correlations are presented in Figures 7.1.3.6 and 7.1.3.7 below. Refer to Section 10.4.3 for additional correlation figures.

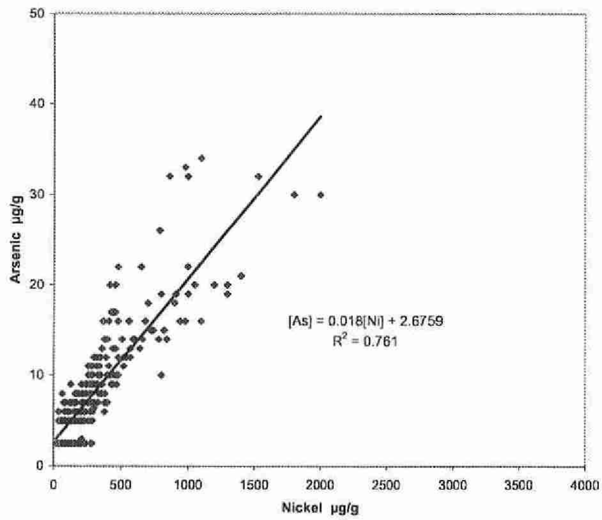

Fig 7.1.3.6: As vs. Ni, 0 - 5 cm, Sudbury Core

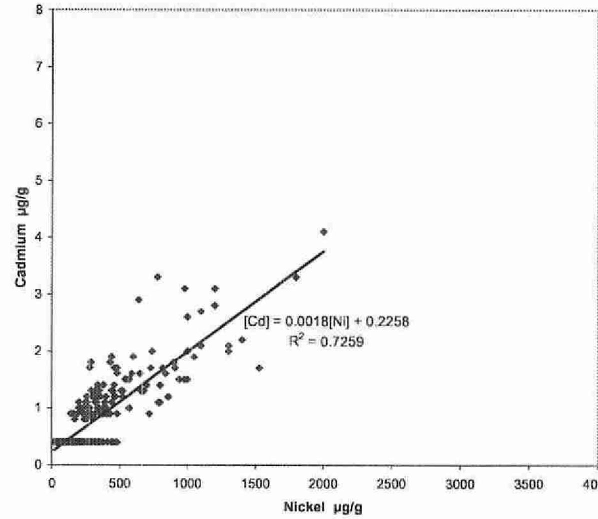

Fig 7.1.3.7: Cd vs. Ni, 0 - 5 cm, Sudbury Core

The correlation between nickel, copper, cobalt and arsenic remained similar at all depth intervals in Pearson's and Spearman's with minor fluctuations in the level of significance between cobalt and arsenic. Iron and cadmium, however, were not correlated with these elements below 0 - 5 cm. With depth, zinc remained moderately correlated with nickel, copper, cobalt and arsenic using Pearson's and strongly correlated using Spearman's. Using Spearman's, lead remained strongly correlated with all four elements at 5 - 10 cm and only strongly correlated with nickel and copper at 10 - 20 cm. The moderate correlations between lead and nickel, copper, cobalt and arsenic disappear with depth using Pearson's. A strong correlation between lead and zinc was also present, at all three depths, using Pearson's and Spearman's. As discussed in Section 7.1.2, the correlation between lead and zinc tended to be stronger using log transformation and/or Spearman's. Overall, the number of correlations occurring with nickel, copper, cobalt and arsenic decrease with depth.

The correlations of nickel, copper, cobalt, arsenic, lead and zinc at all depths indicate that concentrations of these elements in the Sudbury Core appear to be attributed to smelter emissions. The concentrations of cadmium and iron, at surface, also appear to be attributed to smelter emissions. Arsenic, cadmium and iron did not appear to be attributed to smelter emissions in either the Outer or Inner Sudbury Communities.

For the naturally occurring elements, the overall number of correlations increase with depth. This pattern was the inverse of the pattern observed for nickel, copper, cobalt and arsenic. Aluminum, strontium and vanadium were strongly correlated with each other at all depths using both Pearson's and Spearman's. Chromium, iron, magnesium, and manganese become strongly correlated with each other and with aluminum, strontium and vanadium as depth increased using both Pearson's and Spearman's. As these elements are indicative of the naturally occurring geology in the City of Greater Sudbury, the increase in the number and strength of these correlations was representative of less disturbed soil at depth. Unlike the Outer and Inner Sudbury Communities, only aluminum and vanadium were strongly correlated at all depths. As discussed previously in this section and Sections 7.1.1 and 7.1.2, aluminum and vanadium have consistently been present as indicators of the naturally occurring geology in the Outer and Inner Sudbury Communities and the Sudbury Core. Natural elements such as chromium and iron have shown evidence of aerial deposition in either the Outer or Inner Sudbury Communities.

As was also shown in the soil depth profiles, both chromium and iron showed evidence of aerial deposition in the Sudbury Core. Figures 7.1.3.8 and 7.1.3.9 illustrate the correlations between aluminum and iron at surface and at 10 - 20 cm. The increase in the strength of this correlation is evident and is indicative of aerial deposition of iron at the surface and less disturbed soil at depth. The correlations of barium to other elements fluctuates with depth and between Pearson's and Spearman's. Barium strongly and moderately correlates more with elements associated with smelter emissions such as nickel, copper, cobalt, lead, cadmium and zinc at 0 - 5 cm. The strength and

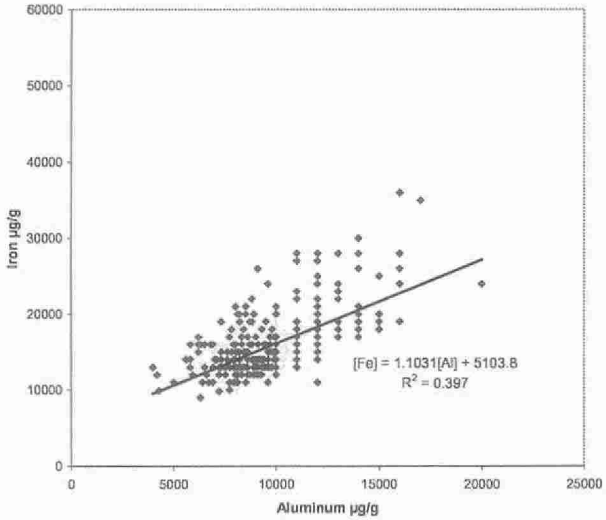

Fig 7.1.3.8: Fe vs. Al, 0 - 5 cm, Sudbury Core

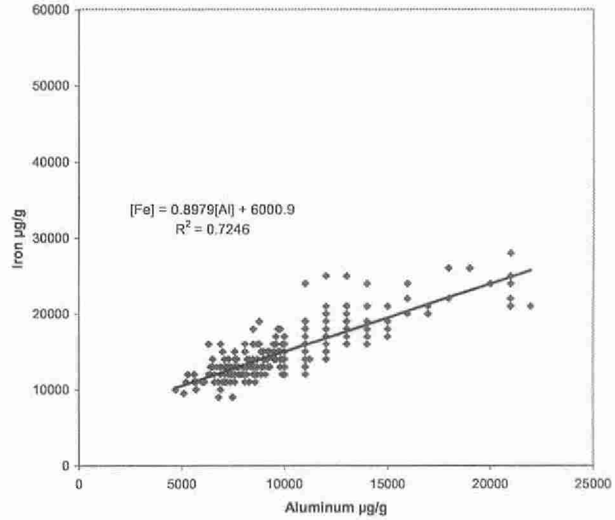

Fig 7.1.3.9: Fe vs. Al, 10 - 20 cm, Sudbury Core

number of these correlations, however, decrease with depth and correlations of barium with naturally occurring elements such as aluminum, manganese, strontium and vanadium increase. Barium was strongly correlated to iron at all depths, using Spearman's. The correlation of barium with aluminum, chromium and vanadium only occurred using Spearman's. The pattern and strength of barium correlations appear to be indicative of aerial deposition at the surface and natural background concentrations at depth. Refer to Section 10.4.3 for a complete list of graphs showing selected element correlations at all three depths for the Inner Sudbury Communities.

In summary, element concentrations in the Sudbury Core were considerably higher and had more exceedences of MOE criteria than in the Outer and Inner Sudbury Communities. A large number of nickel and copper concentrations and a smaller number of arsenic and lead concentrations exceeded Table A at all depths. A small number of cobalt concentrations exceeded Table A only at surface. No other elements exceeded Table A criteria in the Sudbury Core. Twelve elements, at varying depths, exceeded Table F including nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, zinc, antimony, barium and molybdenum. The number of exceedences for all elements decreased with depth.

Overall, concentrations of nickel, copper, cobalt, lead, chromium, zinc, and to a lesser extent arsenic, barium, selenium, cadmium and iron showed a strong aerial deposition trend from surface in the majority of the sample locations in the Sudbury Core. A spatial concentration gradient was observed for nickel, copper, cobalt, lead and arsenic, originating in the neighbourhoods of Gatchell and Little Britain, adjacent to Inco property and generally decreasing to the east and northeast. Concentrations of cadmium, selenium, zinc, chromium and iron were only slightly higher in Gatchell and / or Little Britain. Concentrations of these ten elements decreased with depth, however, maintained a spatial

distribution similar to the surface, with the exception of cadmium which showed no concentration gradient at depth.

In the Sudbury Core, approximately 30% of the sample locations appeared to be affected to some degree by landscaping practices, and nickel, copper, cobalt, lead, selenium, zinc, iron and vanadium concentrations at these locations showed trends of maximum concentrations below surface.

In the Outer and Inner Sudbury Communities, only nickel, copper, and lead showed a strong trend of aerial deposition, while in the Sudbury Core, a strong aerial deposition trend was observed for cobalt as well. Weak trends of aerial deposition were observed for zinc, iron, chromium, selenium and cadmium in the Outer and Inner Sudbury Communities. These trends were stronger in the Sudbury Core. In the Sudbury Core, arsenic concentrations also showed a weak to strong trend of aerial deposition.

The correlations of nickel, copper, cobalt, arsenic, lead and zinc at all depths indicate that concentrations of these elements in the Sudbury Core appear to be attributed to smelter emissions. The concentrations of cadmium, barium and iron, at surface, also appear to be attributed to smelter emissions. Arsenic, cadmium, barium and iron did not appear to be due to to smelter emissions in either the Outer or Inner Sudbury Communities.

7.1.4 Coniston

In Coniston, the surface soil concentrations of the eleven elements used in determining this grouping were considerably higher than the Outer and Inner Sudbury Communities, but were similar to the Sudbury Core. Refer to Table 7.1.4.1. At 0 - 5 cm in Coniston, nickel, copper, cobalt, arsenic, barium, lead, cadmium, selenium and zinc concentrations were considerably higher than in the Outer and Inner Sudbury Communities. Depending on the element the differences in concentrations started from the 25th to 75th percentile. Iron was marginally higher. At this depth, the only differences between Coniston and the Sudbury Core were that arsenic and cobalt were slightly higher in Coniston.

Table 7.1.4.1: Summary Statistics for Metals and Arsenic in Urban Soil in Coniston of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Coniston, n = 301																			
Minimum	3900	0.4	2.5	20	0.4	1400	17	3	8	7400	2	1500	88	0.75	16	0.5	10	18	11
10th percentile	7000	0.4	2.5	33	0.4	2900	22	6	49	11000	12	2000	130	0.75	58	0.5	20	22	27
1st quartile	8050	0.4	2.5	42	0.4	3900	26	7	63	13000	17	2300	160	0.75	81	0.5	26	24	34
Median	9300	0.4	7.0	52	0.4	5400	29	12	150	15000	32	2700	180	0.75	200	0.5	33	27	51
3rd quartile	11000	0.4	13	67	0.9	7300	33	20	325	17000	62	3200	210	0.75	450	2.0	39	30	80
95th percentile	14000	1.0	33	90	1.8	11000	44	45	800	24000	150	4100	250	1.50	1200	3.0	47	35	140
Maximum	20000	3.0	47	180	2.7	33000	75	74	1200	33000	400	10000	320	2.90	1900	5.0	86	44	250
Mean	9622	0.5	10	55	0.7	6044	30	16	244	15379	50	2870	183	0.80	334	1.1	33	27	62
CV (std. dev./mean)	24%	63%	88%	38%	72%	57%	27%	82%	103%	25%	101%	32%	22%	26%	107%	84%	29%	16%	61%
Skewness	1.0	4.9	1.8	1.7	1.8	3.0	2.0	1.7	1.7	1.3	2.6	3.2	0.6	5.6	1.8	1.8	0.8	0.5	1.6
5 to 10 cm Urban Soil in Coniston, n = 297																			
Minimum	3900	0.4	2.5	20	0.4	1500	16	3	8	6500	2	1400	84	0.75	14	0.5	10	17	10
10th percentile	6960	0.4	2.5	31	0.4	2500	21	5	40	11000	9	1800	130	0.75	50	0.5	19	22	21
1st quartile	8100	0.4	2.5	37	0.4	3200	24	7	60	13000	13	2000	140	0.75	77	0.5	24	24	27
Median	9500	0.4	8.0	46	0.4	4000	27	10	120	14000	23	2300	170	0.75	170	0.5	32	27	39
3rd quartile	11000	0.4	15	64	0.4	5500	31	18	330	17000	49	2900	200	0.75	430	1.0	38	30	64
95th percentile	15000	1.2	29	96	0.9	7825	39	30	643	20250	133	3900	260	0.75	900	3.0	49	36	110
Maximum	21000	5.3	53	200	1.2	37000	57	46	920	23000	270	8100	310	2.10	1200	4.0	86	44	260
Mean	9777	0.5	11	53	0.5	4728	28	13	215	14827	41	2565	176	0.78	287	1.0	32	28	49
CV (std. dev./mean)	25%	80%	86%	45%	40%	67%	23%	64%	93%	21%	108	32%	25%	22%	94%	78%	33%	17%	65%
Skewness	0.9	6.5	1.5	2.0	2.6	5.6	1.2	1.4	1.3	0.2	2.2	2.4	0.7	5.1	1.3	1.6	0.8	0.5	2.2
10 to 20 cm Urban Soil in Coniston, n = 290																			
Minimum	4900	0.4	2.5	19	0.4	1400	16	4	17	8500	4	1200	79	0.75	22	0.5	10	17	10
10th percentile	6700	0.4	3	31	0.4	2400	20	6	41	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7700	0	3	38	0	2800	23	7	77	12000	13	2000	140	1	96	1	24	24	26
Median	9150	0.4	8.0	49	0.4	3600	26	10	150	14000	28	2300	170	0.75	190	0.5	31	27	38
3rd quartile	11000	0.4	14	68	0.4	4900	31	16	330	16000	55	2900	200	0.75	390	1.0	39	30	58
95th percentile	15000	1.0	23	110	0.4	7855	39	22	506	20000	146	4200	276	0.75	651	3.0	50	37	120
Maximum	19000	2.7	55	200	1.0	30000	45	43	1100	28000	280	5300	360	1.60	1400	9.0	78	42	210
Mean	9557	0.5	10	57	0.4	4295	27	12	212	14606	43	2524	176	0.77	266	1.0	31	27	48
CV (std. dev./mean)	27%	65%	76%	51%	23%	70%	22%	54%	83%	23%	103%	31%	27%	17%	84%	93%	33%	17%	71%
Skewness	1.1	4.3	1.6	1.9	4.4	5.1	0.8	1.6	1.5	1	2.1	1.0	0.8	5.5	1.6	3.6	0.5	0.5	2.0

All results are in µg/g dry weight.

For 10 - 20 cm, nickel, copper, cobalt, arsenic, lead and zinc were substantially higher in Coniston compared to the Outer and Inner Sudbury Communities. Barium was also higher in Coniston compared to the Outer Sudbury Communities but was similar compared to the Inner Sudbury Communities. At this depth, selenium was marginally higher than both the Outer and Inner Sudbury Communities. Cadmium, chromium and iron concentrations were similar in all three communities at the 10 - 20 cm depth. All other elements in Coniston were essentially the same between the Outer

and Inner Sudbury Communities. Nickel, copper, cobalt, arsenic and lead concentrations were higher at this depth in Coniston than in the Sudbury Core. All other elements in Coniston were the same as in the Sudbury Core.

The major land use in Coniston was residential. The two school properties only had gravel playgrounds and there were only a small number of park properties. As a result, the sample size for the park properties was very small and may affect the validity of comparisons between the park properties and residential properties. The concentrations of nickel, copper, cobalt, arsenic, lead, selenium, chromium, iron and zinc were higher in the residential properties than in the park properties at all depths. The differences in concentrations for nickel, copper, cobalt, arsenic, lead and zinc started from the 10th percentile to the median and onwards, dependant on the element and depth. The concentrations of selenium, chromium and iron started from the 10th to 90th percentile, dependant on the element and depth. Cadmium was substantially higher in the residential properties at surface but only marginally higher below surface. The small sample size for the park properties may have exaggerated the differences between land uses. Refer to Table 7.1.4.2

Table 7.1.4.2: Summary Statistics for All 0-5 cm Urban Soil Samples from Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 287															
Minimum	5400	0.4	2.5	20	0.4	1400	18	3	14	8500	6	1500	88	0.75	25	0.5	10	18	17
10th percentile	7060	0.4	2.5	35	0.4	2900	22	6	50	1200	13	2000	130	0.75	60	0.5	20	22	28
1st quartile	8150	0.4	2.5	42	0.4	3900	26	7	65	1300	18	2300	160	0.75	82	0.5	26	25	35
Median	9400	0.4	7.0	53	0.4	5300	29	11	150	1500	32	2700	180	0.75	200	0.5	33	27	53
3rd quartile	1100	0.4	13	67	0.9	7300	34	20	320	1700	68	3200	210	0.75	450	2.0	39	30	83
95th percentile	1400	1.0	33	90	1.8	1100	44	45	807	2470	150	4070	250	1.50	1200	3.0	47	35	140
Maximum	2000	3.0	47	180	2.7	3300	75	74	1200	3300	400	6900	320	2.90	1900	5.0	86	44	250
Mean	9709	0.5	10	56	0.7	5999	31	16	246	1548	52	2833	183	0.80	336	1.2	33	27	64
CV (std. dev./mean)	24%	64%	88%	37%	72%	57%	27%	82%	103	25%	99%	26%	22%	27%	107	84%	29%	16%	60%
Skewness	1.0	4.8	1.7	1.7	1.8	3.2	2.0	1.8	1.7	1.3	2.6	1.4	0.5	5.4	1.8	1.7	0.8	0.5	1.5
Parks 0 to 5 cm				n = 14															
Minimum	3900	0.4	2.5	20	0.4	2000	17	4	8	7400	2	1600	110	0.75	16	0.5	18	18	11
10th percentile	5800	0.4	2.5	28	0.4	2490	20	5	14	1100	3	1960	119	0.75	23	0.5	22	22	15
1st quartile	6900	0.4	2.5	32	0.4	3000	23	6	26	1100	6	2200	140	0.75	40	0.5	26	24	16
Median	7650	0.4	6.5	37	0.4	6300	26	12	99	1350	11	2900	175	0.75	195	0.5	32	25	30
3rd quartile	9300	0.4	13	46	0.4	9400	28	24	450	1500	20	3400	200	0.75	610	1.0	35	27	41
95th percentile	1100	0.4	17	60	1.1	1540	35	40	614	1735	41	9220	297	0.75	888	1.4	45	30	52
Maximum	1100	0.4	19	81	1.3	1800	36	43	620	1800	42	1000	310	0.75	940	2.0	45	31	58
Mean	7836	0.4	7.9	40	0.5	6979	26	16	211	1324	16	3636	184	0.75	300	0.7	32	25	30
CV (std. dev./mean)	25%	0%	74%	36%	54%	65%	20%	83%	109	20%	84%	69%	35%	0%	108	60%	26%	13%	50%
Skewness	0.0		0.6	1.9	2.0	1.3	0.4	1.2	0.9	-0.3	1.1	2.1	0.9		1.0	2.4	0.1	-0.1	0.4

All results are in µg/g dry weight.

Generally, surface soil park concentrations for nickel, cobalt and arsenic were similar when compared to the Sudbury Core, however, had lower maximum values. Concentrations of copper were marginally lower from the minimum value, and also had lower maximum values. Lead concentrations in Coniston were lower starting from the 25th percentile compared to the Sudbury Core. At depth, however, concentrations of nickel, copper and arsenic were marginally higher in Coniston compared to the Sudbury Core.

There were substantially more exceedences of Table A and F in Coniston than the Outer and Inner Sudbury Communities. Table 7.1.4.3 summarizes the number of urban soil samples that exceeded the Table F and Table A criteria in Coniston. Nickel, copper, cobalt, arsenic and lead concentrations

exceeded Table A at all depths. No other elements exceeded Table A at any depths in Coniston. At 0 - 5 cm 39% of the urban soil samples exceeded Table A and 64% exceeded Table F for copper. At the same depth 55% exceeded Table A and 97% exceed Table F for nickel. Unlike the Sudbury Core, the number of Table A and F exceedences for nickel and copper remained constant with depth. The number of arsenic exceedences increased at 5 - 10 cm and then decreased at 10 - 20 cm.

Table 7.1.4.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in Urban Soil Samples from Coniston of the City of Greater Sudbury

Element	Table F			Table A		
	0 to 5 cm	**5 to 10 cm**	**10 to 20 cm**	**0 to 5 cm**	**5 to 10 cm**	**10 to 20 cm**
Antimony	14 (5%)	21 (7%)	11 (4%)	0	0	0
Arsenic	47 (16%)	61 (21%)	45 (16%)	35 (12%)	46 (15%)	22 (8%)
Cadmium	55 (18%)	6 (2%)	0	0	0	0
Chromium	2 (1%)	0	0	0	0	0
Cobalt	73 (24%)	46 (15%)	23 (8%)	23 (8%)	2 (1%)	2 (1%)
Copper	193 (64%)	186 (63%)	208 (72%)	116 (39%)	108 (36%)	110 (38%)
Lead	25 (8%)	20 (7%)	20 (7%)	6 (2%)	3 (1%)	3 (1%)
Molybdenum	1	0	0	0	0	0
Nickel	291 (97%)	279 (94%)	269 (93%)	166 (55%)	164 (55%)	167 (58%)
Selenium	83 (28%)	71 (24%)	56 (19%)	0	0	0
Zinc	4 (1%)	3 (1%)	5 (2%)	0	0	0
No. of Samples	301	297	290	301	297	290

Spatial distribution of the chemical concentrations in the Sudbury Core were assessed using concentration dot maps. Concentration dot maps were created for 10 elements at the 0 - 5 cm and 10 - 20 cm soil depths. Generally, the concentrations of nickel, copper, cobalt, arsenic and lead at 0 - 5 cm were elevated throughout Coniston. There was a trend of higher concentrations for these elements at 0 - 5 cm throughout the centre of the community with lower concentrations towards the east and west ends. The properties sampled in the east and west ends were generally newer than those sampled in the centre of town. At 0 - 5 cm, concentrations of cadmium, selenium, zinc, iron, and to a lesser extent chromium, were slightly higher in the centre of the community, but were relatively low.

In Coniston, the concentrations of nickel, copper, arsenic, and to a lesser extent lead and zinc, generally decrease slightly with depth, however, the spatial trend remains similar to the surface. Concentrations of cobalt, cadmium, selenium, chromium and iron also decreased with depth, but no concentration gradient was observed at 10 - 20 cm.

Concentrations in approximately half of the sample locations show the highest concentration at either 5 - 10 cm or 10 - 20 cm. This is different from the Sudbury Core where concentrations of these elements decreased rapidly with depth for the majority of sample locations. The largest increase in concentrations between surface and depth was observed for nickel, copper, cobalt, arsenic and iron at the south end of the community adjacent to the former smelter. For an example of the spatial distributions for nickel in the 0 - 5 and 10 - 20 cm soil depths, refer to Figures 7.1.4.1 and 7.1.4.2. Arrows have been inserted in Figure 7.1.4.2 highlighting the locations where concentrations increased with depth. Refer to Section 10.2.3 for concentration dot maps of these 10 elements at different depth intervals in Coniston.

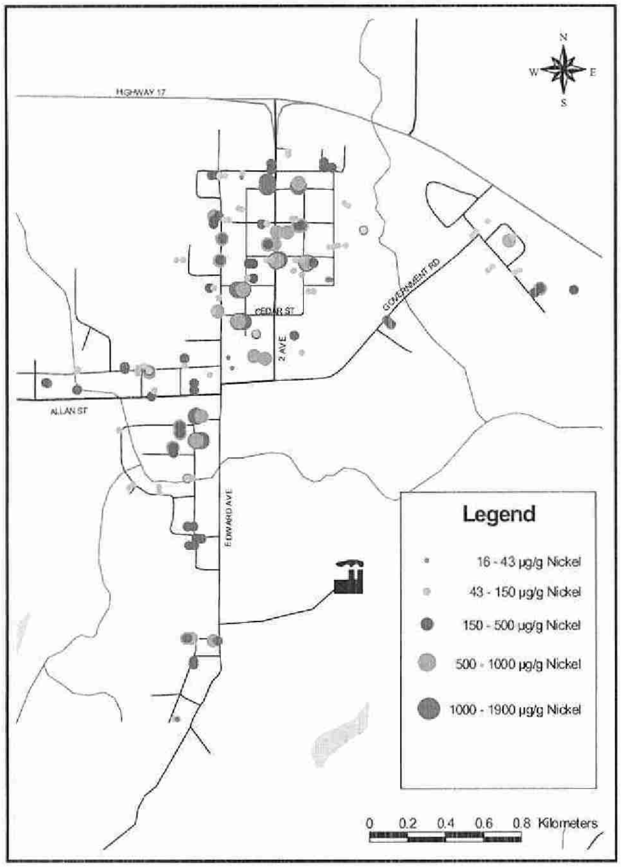

Figure 7.1.4.1: Ni concentrations in urban 0 - 5 cm soil in Coniston

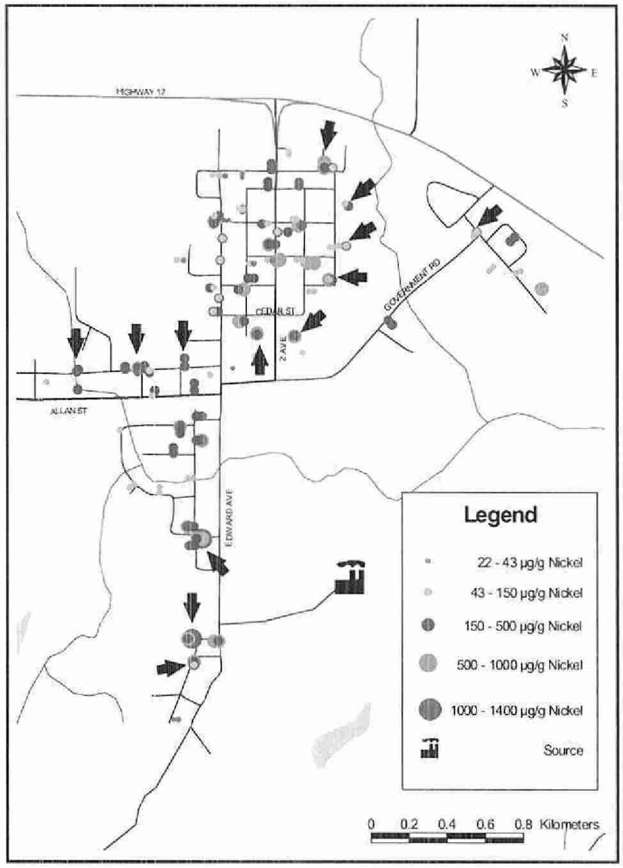

Figure 7.1.4.2: Ni concentrations in urban 10 - 20 cm soil in Coniston

In Coniston, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Forty-four percent of the soil sampling locations showed a strong visual trend of decreasing concentration with depth for nickel, copper, cobalt, lead, iron and zinc in the second through fourth quarters, consistent with Group A. This trend was most pronounced between the 0 - 5 cm and the 5 - 10 cm depth. Average concentrations at surface for these elements were 1.1 to 3.0 times the average concentrations at the 10 - 20 cm depth, for the second through fourth quarters. Generally, the weakest trend was observed in the second quarters and the strongest was observed in the fourth.

Generally, the average concentrations for these elements decreased greatly between the surface and the 5 - 10 cm depth, but only marginally between the 5 - 10 cm and 10 - 20 cm depth. The exceptions were the fourth quarters for nickel, copper and cobalt which decreased in concentration at a relatively constant rate. Refer to Figure 7.1.4.3 for the depth profile of copper in Group A for Coniston.

Arsenic concentrations showed a weak visual trend of aerial deposition in the first and second quarters (1.1 to 1.4 times), and a stronger trend in the third and fourth quarters (1.5 to 2.0 times).

Selenium concentrations showed a weak to strong trend of aerial deposition in the third and fourth quarters (1.8 to 2.1 times). The first and second quarters for selenium showed no observable change in concentration with depth. Cadmium and chromium concentrations showed a similar trend of aerial deposition in the fourth quarter (3.0 times and 1.6 times respectively), while the first through

third quarters showed no observable change with depth. The average concentrations in all quarters for cadmium, the first through third quarters for selenium, and the first and second quarters for arsenic were at or near analytical MDLs. As a result, the concentration trends observed in these quarters should be interpreted with caution.

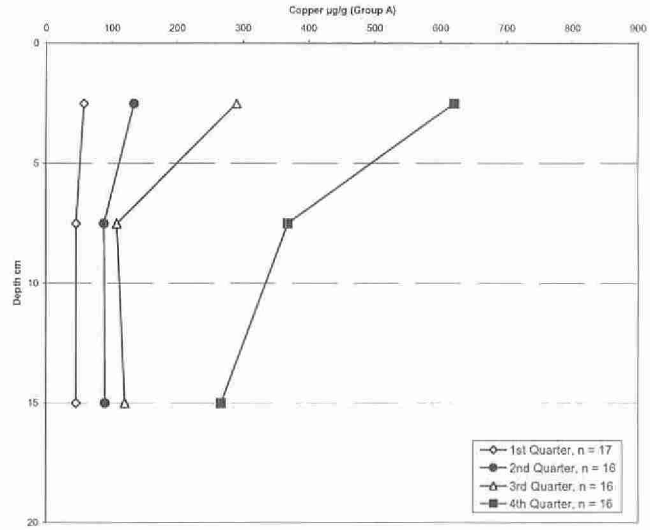

Figure 7.1.4.3: Coniston, Cu depth profile, Group A

A weak trend of aerial deposition was observed in the fourth quarters (1.1 to 1.3 times) for aluminum and vanadium. The depth trend observed for these two elements was likely an artifact of the sorting process. Aluminum and vanadium tend to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore would not be expected to show similar depth trends to nickel. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.4 for graphs of the depth profiles for the elements discussed above.

Only 44% of the sample locations in Coniston showed a strong trend of aerial deposition from surface, compared to approximately 75% of the locations in the Inner Sudbury Communities and the Sudbury Core, and 49% in the Outer Sudbury Communities. More than half of the sample locations in Coniston showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm, the maximum depth of investigation. The smelter in Coniston ceased operation in 1972. The high occurrence of maximum concentrations below surface may be attributed to the absence of an ongoing emissions source in Coniston.

In Coniston, 28% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 cm and 10 - 20 cm. This trend is consistent with Group B. Nickel, copper, cobalt, and to a lesser extent lead and zinc concentrations, showed a strong visual trend of maximum concentrations occurring at 5 - 10 cm in all quarters. For these elements, the average concentrations at 5 - 10 cm were 1.3 to 1.7 times the average concentrations at surface for the first through third quarters, and 1.7 to 3.4 times for the fourth quarters. Figure 7.1.4.4 depicts the depth profile of copper in Group B for Coniston.

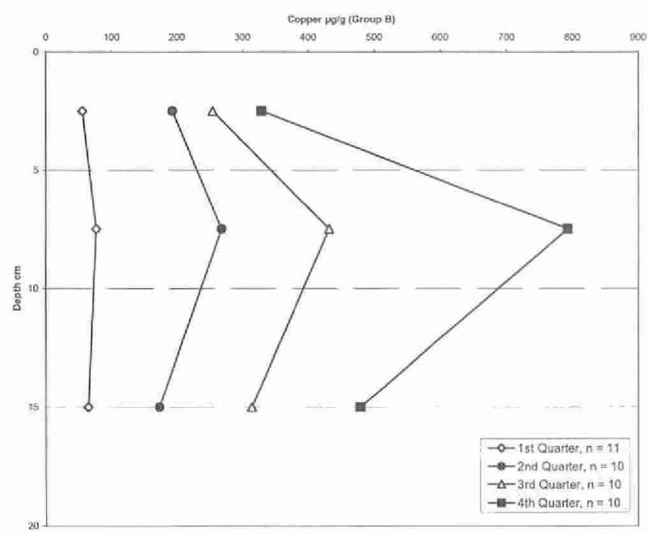

Figure 7.1.4.4: Coniston, Cu depth profile, Group B

A strong Group B trend (1.7 to 3.4 times) was observed in the fourth quarters for arsenic, cadmium and selenium. A similar but weaker trend was observed in the second and third quarters (1.2 to 1.5 times) for these elements, with the exception of the second quarter for cadmium which showed no change with depth. Arsenic and selenium concentrations in the first quarter, and cadmium concentrations in the first and second quarters were at or near analytical MDLs, and concentration trends in these quarters should be interpreted with caution. Chromium and iron concentrations showed a weak Group B trend (1.4 to 1.6 times) in the fourth quarters, and a very weak trend (1.1 to 1.2 times) in the second and third quarters.

A very weak Group B trend (1.1 to 1.2 times) was observed in the second through fourth quarters for aluminum, and third and fourth quarters for vanadium. The depth trend observed for these elements was likely an artifact of the sorting process. Aluminum and vanadium tend to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore would not be expected to show similar depth trends to nickel.

In Coniston, 29 % of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Concentrations of nickel and copper showed a strong visual trend of increasing concentrations with depth in all quarters, while concentrations of cobalt and arsenic showed a strong visual trend in the second through fourth quarters. Average concentrations of nickel, copper, cobalt and arsenic at the 10 - 20 cm soil depth were 1.3 to 2.2 times the average concentrations observed at the surface in the second through fourth quarters. Figure 7.1.4.5 depicts the depth profile of copper in Group C for Coniston.

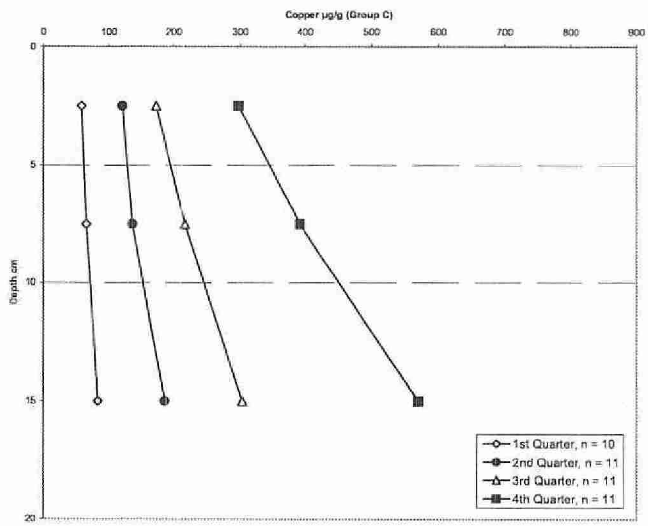

Figure 7.1.4.5: Coniston, Cu depth profile, Group C

Lead, selenium, zinc and to a lesser degree iron concentrations showed a strong pattern of decreasing concentration with increasing depth in the fourth quarters, consistent with Group C. Average concentrations observed at 10 - 20 cm, in the fourth quarter, was 1.2 to 1.8 times the concentrations observed at the surface. There was no observable concentration change with depth in the first through third quarters for these elements. Selenium concentrations in the first through third quarters were at or near analytical MDLs.

Aluminum, vanadium, cadmium and chromium showed a very weak to no change in concentration with depth. Average concentrations in all quarters for cadmium were at or near analytical MDLs and should be interpreted with caution. Refer to Section 10.5.4 for graphs of the depth profiles for the elements discussed above.

Overall, nickel, copper, cobalt, lead and zinc concentrations in 44% of the sample locations in Coniston showed a strong aerial deposition trend from surface. Arsenic, cadmium, selenium, chromium and iron also showed a weaker aerial deposition trend from surface in these sample locations. The remaining sample locations appeared to be affected by some degree of landscaping

practices, and had maximum concentrations occurring below 0 - 5 cm. The same 10 elements showed a strong to weak trend of maximum concentrations occurring at 5 - 10 cm below surface. The concentration trends of these elements dropped off slightly at the 10 - 20 cm depth, and disappeared completely for cadmium and chromium. These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil.

The concentration trends observed in Coniston were similar to those observed in the Sudbury Core and the Inner Sudbury Communities for Groups A, B and C. In these communities, nickel, copper, cobalt and lead showed a strong trend of aerial deposition in all quarters. Weak to strong trends of aerial deposition were observed in the third and/or fourth quarters for arsenic, cadmium, selenium, chromium, zinc and iron in the Sudbury Core and Inner Sudbury Communities. In Coniston, however, only 44% of the sample locations showed a strong trend of aerial deposition from surface, compared to approximately 75% of the locations in the Inner Sudbury Communities and the Sudbury Core, and 49% in the Outer Sudbury Communities. More than half of the sample locations in Coniston showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Tables 7.1.4.4 to 7.1.4.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths, and Tables 10.4.4.1 through 10.4.4.3 for the full results of the analysis. In Tables 7.1.4.4 to 7.1.4.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type. Values that were between 0.70 and 0.75 were considered moderately correlated.

Table 7.1.4.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Coniston

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*-0.2*	*0.5*	*-0.1*	*0.6*	*-0.1*	*-0.2*	*0.4*	*-0.2*	*0.5*	*0.6*	*-0.2*	*-0.2*	***0.8***	***0.9***	*-0.1*
As	-0.1	1	*0.5*	*0.7*	*0.2*	***0.9***	***0.9***	*0.6*	***0.8***	*-0.1*	*0.1*	***0.9***	*0.6*	*0.0*	*-0.1*	***0.8***
Ba	0.5	0.4	1	*0.4*	*0.6*	*0.6*	*0.5*	*0.7*	*0.5*	*0.3*	*0.6*	*0.5*	*0.3*	*0.6*	*0.4*	*0.6*
Cd	-0.1	**0.8**	0.4	1	*0.3*	*0.7*	*0.7*	*0.6*	*0.7*	*0.0*	*0.1*	*0.7*	*0.6*	*0.0*	*-0.1*	*0.7*
Cr	0.4	0.3	0.5	0.5	1	*0.3*	*0.2*	*0.6*	*0.1*	*0.6*	*0.6*	*0.2*	*0.2*	*0.5*	*0.6*	*0.3*
Co	-0.1	**0.9**	0.4	**0.9**	0.3	1	***1.0***	*0.7*	***0.8***	*0.1*	*0.2*	***1.0***	*0.6*	*0.1*	*0.0*	***0.8***
Cu	-0.1	**0.9**	0.5	**0.8**	0.3	**1.0**	1	*0.6*	***0.9***	*-0.1*	*0.1*	***1.0***	*0.6*	*0.0*	*-0.2*	***0.8***
Fe	0.3	**0.8**	0.6	0.7	0.5	**0.8**	**0.8**	1	*0.5*	*0.3*	*0.5*	*0.7*	*0.5*	*0.4*	*0.5*	*0.6*
Pb	-0.2	**0.8**	0.5	0.7	0.2	0.7	0.7	0.6	1	*-0.1*	*0.0*	***0.8***	*0.6*	*-0.1*	*-0.2*	***0.8***
Mg	0.4	-0.2	0.2	0.0	0.3	0.0	-0.1	0.1	-0.1	1	*0.6*	*-0.1*	*-0.1*	*0.5*	*0.6*	*0.1*
Mn	0.6	0.1	0.6	0.1	0.4	0.1	0.1	0.3	0.0	0.6	1	*0.1*	*0.0*	*0.7*	*0.7*	*0.3*
Ni	-0.1	**0.9**	0.4	**0.8**	0.3	**1.0**	**1.0**	**0.8**	0.7	-0.1	0.1	1	*0.6*	*0.0*	*-0.1*	***0.8***
Se	0.0	0.7	0.4	0.7	0.3	0.7	0.7	0.7	0.6	-0.1	0.1	0.7	1	*0.0*	*-0.1*	*0.6*
Sr	0.7	0.0	0.5	0.0	0.4	0.0	0.0	0.3	0.0	0.5	0.7	0.0	0.0	1	***0.8***	*0.1*
V	**0.9**	-0.1	0.4	-0.1	0.5	-0.1	-0.1	0.4	-0.1	0.5	0.6	-0.1	0.0	0.7	1	*-0.1*
Zn	-0.1	0.7	0.7	0.7	0.4	0.7	0.7	0.6	**0.8**	0.0	0.2	0.7	0.5	0.2	-0.1	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.4.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Coniston

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	0.0	0.5	0.0	**0.8**	0.0	-0.1	0.6	-0.2	0.6	0.7	-0.1	-0.1	**0.8**	**0.9**	0.0
As	-0.1	1	0.5	0.3	0.1	**0.9**	**0.9**	0.6	0.7	-0.3	0.1	**0.9**	0.7	0.1	-0.1	0.7
Ba	0.4	0.5	1	0.2	0.5	0.6	0.5	0.7	0.5	0.2	0.7	0.5	0.4	0.6	0.4	0.7
Cd	-0.1	0.4	0.3	1	0.2	0.4	0.4	0.3	0.4	-0.1	0.1	0.4	0.4	0.1	0.0	0.4
Cr	0.7	0.0	0.4	0.3	1	0.2	0.1	0.6	0.0	0.6	0.7	0.1	0.0	0.7	**0.8**	0.2
Co	0.0	**0.9**	0.5	0.5	0.1	1	**0.9**	0.7	0.7	-0.2	0.2	**1.0**	0.7	0.2	0.0	**0.8**
Cu	-0.1	**0.9**	0.6	0.5	0.1	**1.0**	1	0.5	**0.8**	-0.3	0.1	**1.0**	0.6	0.1	-0.1	**0.8**
Fe	0.6	0.6	0.7	0.3	0.5	0.7	0.6	1	0.4	0.3	0.6	0.5	0.4	0.5	0.6	0.5
Pb	-0.1	0.7	0.7	0.4	0.0	0.7	**0.8**	0.5	1	-0.3	0.0	**0.8**	0.5	0.0	-0.2	**0.8**
Mg	0.5	-0.3	0.1	-0.1	0.5	-0.2	-0.3	0.3	-0.3	1	0.6	-0.3	-0.2	0.5	0.7	-0.1
Mn	0.6	0.1	0.6	0.1	0.6	0.1	0.1	0.5	0.0	0.5	1	0.1	0.0	0.7	0.7	0.3
Ni	-0.1	**0.9**	0.5	0.5	0.1	**1.0**	**1.0**	0.6	0.7	-0.3	0.0	1	0.6	0.1	-0.1	**0.8**
Se	-0.1	0.7	0.4	0.4	0.0	**0.8**	**0.8**	0.5	0.6	-0.2	0.0	0.7	1	0.0	-0.1	0.5
Sr	0.7	0.0	0.5	0.1	0.6	0.1	0.1	0.4	0.0	0.5	0.7	0.1	0.0	1	0.7	0.2
V	**0.9**	-0.1	0.3	-0.1	0.7	-0.1	-0.1	0.6	-0.2	0.6	0.7	-0.2	-0.1	0.7	1	0.0
Zn	0.0	0.6	0.7	0.5	0.1	0.7	0.7	0.5	**0.8**	-0.1	0.3	0.7	0.5	0.3	-0.1	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.4.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Coniston

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	0.1	0.5	0.0	**0.8**	0.2	0.1	0.7	-0.1	0.6	0.6	0.1	0.0	**0.8**	**0.9**	0.2
As	0.0	1	0.6	0.1	0.0	**0.9**	**0.9**	0.5	0.7	-0.3	0.1	**0.9**	0.5	0.2	0.0	0.7
Ba	0.4	0.6	1	0.16	0.5	0.7	0.6	0.7	0.5	0.2	0.7	0.6	0.3	0.6	0.5	**0.8**
Cd	0.0	0.3	0.4	1	0.0	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.2	0.1	0.0	0.2
Cr	**0.8**	0.0	0.4	0.0	1	0.2	0.0	0.7	-0.2	**0.8**	0.7	0.0	-0.1	0.7	**0.9**	0.2
Co	0.2	**0.8**	0.7	0.3	0.1	1	**0.9**	0.6	0.7	-0.1	0.3	**1.0**	0.5	0.3	0.1	**0.8**
Cu	0.1	**0.9**	0.7	0.3	0.0	**0.9**	1	0.4	**0.8**	-0.3	0.1	**1.0**	0.6	0.2	0.0	**0.8**
Fe	0.7	0.5	0.7	0.2	0.6	0.6	0.5	1	0.3	0.5	0.7	0.4	0.2	0.6	0.7	0.5
Pb	-0.1	0.7	0.7	0.3	-0.2	0.6	0.7	0.3	1	-0.3	0.1	0.7	0.4	0.1	-0.1	**0.8**
Mg	0.6	-0.3	0.1	0.0	0.7	-0.1	-0.3	0.5	-0.3	1	0.6	-0.3	-0.3	0.4	0.6	-0.1
Mn	0.7	0.2	0.6	0.2	0.7	0.4	0.2	0.7	0.1	0.6	1	0.1	0.1	0.7	0.7	0.4
Ni	0.1	**0.9**	0.7	0.4	0.0	**1.0**	**1.0**	0.5	0.7	-0.3	0.3	1	0.6	0.2	0.0	**0.8**
Se	0.0	0.4	0.3	0.1	0.0	0.4	0.5	0.3	0.3	-0.2	0.1	0.5	1	0.1	-0.1	0.5
Sr	**0.8**	0.2	0.5	0.1	0.7	0.3	0.2	0.6	0.1	0.5	0.7	0.2	0.1	1	0.7	0.4
V	**0.9**	0.0	0.4	0.0	**0.9**	0.1	0.0	0.7	-0.1	0.7	0.7	-0.1	0.0	0.7	1	0.1
Zn	0.1	0.7	**0.8**	0.4	0.1	**0.8**	**0.8**	0.4	0.7	-0.1	0.4	**0.8**	0.3	0.3	0.0	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

In Coniston, at 0 - 5 cm, nickel, copper, cobalt, arsenic, cadmium were strongly correlated with each other using Pearson's and Spearman's. Selenium, lead, zinc and iron moderately correlated with these elements using Pearson's. Using Spearman's, lead and zinc were strongly correlated with these elements. Lead and zinc, and lead and arsenic were also strongly correlated with each other at 0 - 5 cm using both Pearson's and Spearman's.

The correlation between nickel, copper, cobalt and arsenic remained similar at all depth intervals in Pearson's and Spearman's. Iron and selenium generally correlated with these elements at 5 - 10 cm but did not correlate with these elements at depth. Cadmium was not correlated with any elements below 0 - 5 cm. Generally with depth, zinc was strongly correlated with nickel, copper, cobalt and lead and moderately correlated with arsenic, using both Pearson's and Spearman's. Generally with depth, lead was strongly correlated with copper and zinc and moderately correlated with arsenic, cobalt and nickel using both Pearson's and Spearman's.

Overall, the number of correlations occurring with nickel, copper, cobalt, arsenic, lead and zinc decreased slightly with depth. The correlations of nickel, copper, cobalt, arsenic, lead and zinc at all depths were typically strong, indicating that concentrations of these elements in Coniston appear to be attributed to smelter emissions. Figures 7.1.4.6 and 7.1.4.7 show the correlations of nickel and cobalt at surface and at 10 - 20 cm in Coniston. Unlike in the Outer and Inner Sudbury Communities, cobalt remained strongly correlated to nickel with depth. The correlations of iron, cadmium and selenium at surface, also indicate that these concentrations may be due to smelter

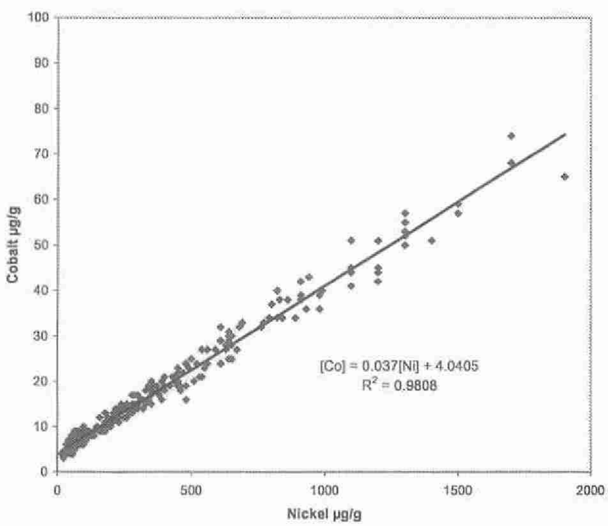

Fig 7.1.4.6: Co vs. Ni, 0 - 5 cm, Coniston

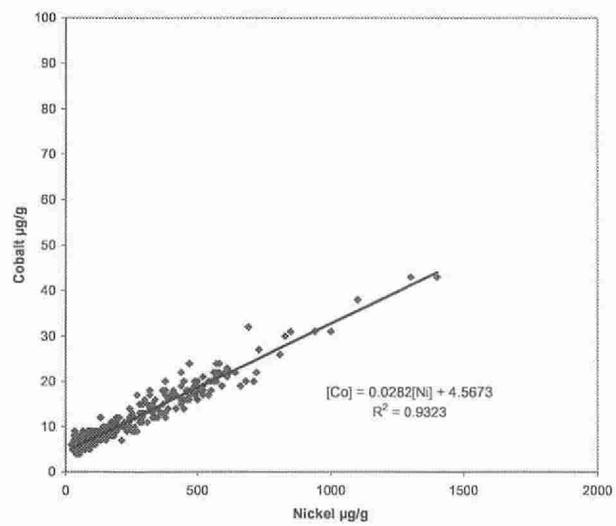

Fig 7.1.4.7: Co vs. Ni, 10 - 20 cm, Coniston

emissions. Refer to Section 10.4.4 for additional correlation figures.

For the naturally occurring elements, the overall number of correlations increase with depth. Aluminum, strontium and vanadium were correlated with each other at all depths using both Pearson's and Spearman's. With depth, aluminum, strontium and vanadium developed strong correlations with chromium and moderate correlations with iron, magnesium, and manganese, using both Pearson's and Spearman's. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury, the increase in the number and strength of these correlations was representative of less disturbed soil at depth. Similar to the Sudbury Core, only aluminum and vanadium were strongly correlated at all depths.

As observed in Figures 7.1.4.8 and 7.1.4.9, chromium and vanadium correlations strengthened with depth. This trend was also shown by the increase in Pearson's and Spearman's R-values, which ranged from R = 0.5 at 0 - 5 cm, to R = 0.9 at 10 - 20 cm, (Refer to Tables 7.1.4.4 and 7.1.4.6). At 0 - 5 cm, two patterns of chromium concentrations were observed. The first pattern consisted of high

chromium concentrations while vanadium concentrations were relatively constant. Chromium and vanadium concentrations in the second pattern increased at a similar rate. The presence of two patterns suggested that there were two sources of chromium. The first pattern, which occurred at 0 - 5 cm, is indicative of aerial deposition, while the second pattern, which occurred at all depths, is indicative of the naturally occurring geology. Similar patterns were also observed with the aluminum/chromium and aluminum/iron correlations.

The number of correlations of barium to other elements increased with depth. At 0 - 5 cm, barium moderately correlated with zinc (using Pearson's) and iron (using Spearman's). At 5 - 10 cm, barium continued to be moderately correlated with zinc and iron using both Pearson's and

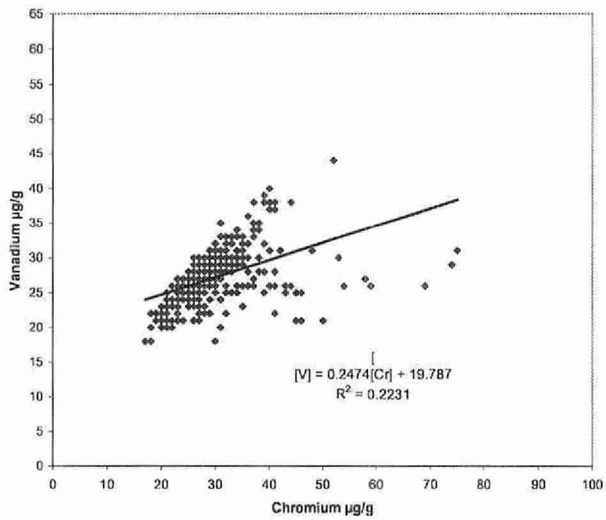

Fig 7.1.4.8: V vs. Cr, 0 - 5 cm, Coniston

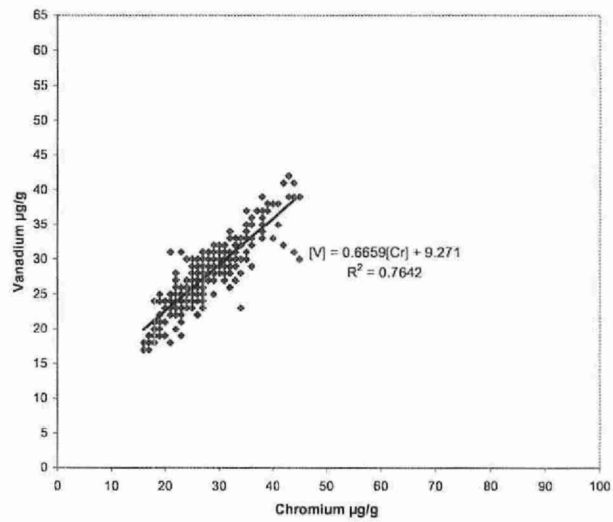

Fig 7.1.4.9: V vs. Cr, 10 - 20, Coniston

Spearman's. Moderate correlations with lead (using Pearson's) and manganese (using Spearman's) were also present at this depth. At 10 - 20 cm, both Pearson's and Spearman's showed strong correlations between barium and zinc, and moderate barium correlations with cobalt and iron. Moderate correlations with nickel, copper, lead and manganese using Pearson's or Spearman's were also present at this depth. Unlike in the Sudbury Core, the barium correlations in Coniston were generally moderate, and increased in number with depth. Barium did not clearly correlate with either natural or elements associated with smelter emissions.

Refer to Section 10.4.4 for a complete list of graphs showing selected element correlations at all three depths for Coniston.

In summary, the element concentrations in Coniston were considerably higher and had more exceedences of MOE criteria than in the Outer and Inner Sudbury Communities. Element concentrations in Coniston were similar to the Sudbury Core at the 0 - 5 cm depth, with the exception of higher arsenic and cadmium concentrations in Coniston. Concentrations of nickel, copper, cobalt, arsenic and lead remained higher with depth in Coniston, compared to the Sudbury Core where they decreased more rapidly with depth. In Coniston, concentrations of these elements exceeded Table A at all depths. There were substantially more Table F and A exceedences of arsenic and cobalt at all depths in Coniston compared to the Sudbury Core. The number of arsenic exceedences increased at 5 - 10 cm, then decreased at 10 - 20 cm.

At 0 - 5 cm, a spatial concentration gradient was observed for nickel, copper, cobalt, arsenic and lead with the higher concentrations starting in the centre of the community and lower concentrations towards the east and west ends. Concentrations of cadmium, selenium, zinc, iron, and to a lesser extent chromium, were slightly higher in the centre of the community, but were all relatively low.

At depth, concentrations of nickel, copper, arsenic, and to a lesser extent lead and zinc, generally decrease slightly while maintaining a similar spatial trend to the surface. Concentrations of cobalt, cadmium, selenium, chromium and iron also decreased with depth, but a concentration gradient was not observed at 10 - 20 cm. Concentrations in more than half of the sample locations show the highest concentrations of nickel, copper, arsenic and lead at either 5 - 10 cm or 10 - 20 cm. For Coniston, the largest increase in concentrations between surface and depth was observed at the south end of the community adjacent to the former smelter.

In 44% of the sample locations in Coniston, nickel, copper, cobalt, lead, zinc, and to a lesser extent arsenic, cadmium, selenium, chromium and iron, concentrations showed a strong aerial deposition trend from surface. The remaining sample locations had maximum concentrations occurring below surface. A strong to weak trend of maximum concentrations occurring at 5 - 10 cm was observed for the same 10 elements. The concentration trends of these elements dropped off slightly at the 10 - 20 cm depth and disappeared completely for cadmium and chromium. These elevated concentrations may still be attributed to aerial deposition, however, overtime have been buried by landscaping practices at individual properties.

In Coniston, at 0 - 5 cm nickel, copper, cobalt, arsenic, cadmium, and to a lesser extent lead and zinc, were strongly correlated with each other using Pearson's and Spearman's. Selenium and iron moderately correlated with these elements using Pearson's. Overall, the number of correlations occurring with nickel, copper, cobalt, arsenic, lead and zinc decreased slightly with depth. The correlations of these elements at all depths were typically strong, indicating that concentrations of these elements in Coniston appear to be attributed to smelter emissions. The correlations of iron, chromium, cadmium and selenium at surface also indicate that these concentrations may be due to smelter emissions. Correlations of naturally occurring elements increased in strength and number with depth, indicating the presence of less disturbed soil at depth. Similar to the Sudbury Core, only aluminum and vanadium were strongly correlated at all depths. Unlike the Sudbury Core, barium did not clearly correlate with either naturally occurring elements or those associated with smelter emissions.

7.1.5 Falconbridge

In Falconbridge, the concentrations of most of the eleven elements used in determining this grouping were considerably higher than in Coniston and the Sudbury Core at all depths. Refer to Table 7.1.5.1. At all three depth intervals in Falconbridge, nickel, copper, cobalt, arsenic, lead, selenium, cadmium, chromium and iron were generally higher than in both Coniston and the Sudbury Core. Differences in concentrations between the communities for these elements started from the 25th percentile, except for cadmium which started from the 25th to 75th percentile at all depths. At 10 - 20 cm, lead concentrations were marginally lower in Falconbridge than in Coniston from the 95th percentile.

Table 7.1.5.1: Summary Statistics for Metals and Arsenic in Urban Soil in Falconbridge of the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Falconbridge,			n = 220																
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7090	0.4	9	31	0.4	3690	27	11	72	12900	14	2100	140	0.75	120	0.5	21	24	29
1st quartile	7900	0.4	29	39	1.1	5500	33	28	390	16000	35	2400	160	0.75	445	1.0	27	26	50
Median	9000	0.4	49	50	2.1	7300	40	49	780	21000	66	2800	180	2.2	820	2	33	30	66
3rd quartile	10000	0.4	100	56	3.0	9550	52	74	1200	27000	120	3250	210	3.7	1300	3	38	34	99
95th percentile	12000	1.2	181	69	4.3	13000	73	111	1900	38000	200	4105	240	7.6	2105	6	45	39	150
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	6900	310	14.0	3700	12	51	56	240
Mean	9080	0.5	69	48	2.2	7885	44	54	828	21886	83	2902	182	2.8	915	2.6	32	30	76
CV (std. dev./mean)	19%	83%	84%	27%	59%	55%	34%	64%	72%	37%	80%	26%	20%	82%	71%	71%	24%	18%	54%
Skewness	0.5	4.9	1.3	0.1	0.4	3.9	0.9	0.8	0.8	0.9	1.5	1.6	0.4	1.7	1	1.6	-0.3	0.8	1.3
5 to 10 cm Urban Soil in Falconbridge,			n = 217																
Minimum	4700	0.4	2.5	22	0.4	2500	17	5	10	10000	4	1500	110	0.75	22	0.5	13	19	14
10th percentile	7800	0.4	18	31	0.4	3200	25	11	132	12600	15	1900	130	0.75	136	0.5	22	25	26
1st quartile	8800	0.4	34	38	0.4	4400	29	22	310	15000	26	2100	150	0.75	430	1.0	26	27	39
Median	9800	0.4	76	48	1.1	6500	36	37	580	20000	55	2400	180	0.75	740	3.0	31	31	57
3rd quartile	11000	0.4	140	58	1.7	9100	46	57	1000	26500	120	2700	230	0.75	1100	4.0	38	35	87
95th percentile	13000	1.2	323	74	3.4	13000	75	113	2025	40000	220	3300	300	2.23	2225	6.0	44	41	140
Maximum	23000	8.1	570	89	4.8	33000	140	150	3000	100000	340	13700	480	8.80	3100	11.0	50	110	210
Mean	10027	0.6	109	48	1.3	7123	41	43	754	22857	77	2627	196	1.02	849	2.8	32	33	65
CV (std. dev./mean)	23%	125%	96%	29%	73%	51%	49%	70%	80%	55%	86%	51%	31%	73%	74%	69%	25%	33%	56%
Skewness	2.1	7.1	1.7	0.2	1.2	2.2	2.3	1.2	1.3	2.9	1.3	5.8	1.5	6.1	1.3	1.1	-0.1	3.9	1.1
10 to 20 cm Urban Soil in Falconbridge,			n = 217																
Minimum	5200	0.4	2.5	24	0.4	2000	17	5	13	10000	4	1400	97	0.75	25	0.5	12	17	14
10th percentile	7800	0.4	17	32	0.4	3100	23	9	93	12000	11	1800	130	0.75	140	0.5	21	25	22
1st quartile	8700	0.4	29	39	0.4	3900	27	13	160	14000	18	2100	150	0.75	240	1.0	25	27	31
Median	10000	0.4	57	47	0.4	5100	32	21	310	16000	32	2300	170	0.75	410	2.0	31	31	43
3rd quartile	11000	0.4	120	59	1.0	6700	40	31	530	21000	64	2600	220	0.75	605	3.0	36	35	61
95th percentile	14000	1.0	242	78	1.8	9760	76	56	1000	37000	142	4800	340	1.70	1200	6.0	43	56	93
Maximum	25000	1.4	620	110	3.4	30000	160	110	2000	110000	230	15500	540	6.00	2500	8.0	55	130	140
Mean	10370	0.5	88	49	0.8	5737	37	25	398	19825	48	2694	193	0.88	488	2.1	31	33	49
CV (std. dev./mean)	27%	43%	101%	30%	71%	53%	56%	71%	83%	70%	89%	70%	37%	66%	78%	79%	26%	41%	49%
Skewness	2.4	3.4	2.4	0.9	2.0	3.4	3.5	2.3	1.7	4.5	1.5	4.8	1.9	6.4	2.2	1.6	0.1	4.1	0.9

All results are in µg/g dry weight.

Zinc concentrations were generally similar in the Sudbury Core, Coniston and Falconbridge for all three depths. Zinc concentrations were marginally higher in both the Sudbury Core and Coniston compared to Falconbridge at 10 - 20 cm for the 95th percentile and maximum values.

Generally, aluminum concentrations in Falconbridge were slightly higher at all depths from the 25th to 75th percentile and slightly lower from the median to 95th percentile in Coniston and the Sudbury

Core. Barium, magnesium, manganese, strontium and vanadium concentrations were either similar or marginally lower in Falconbridge compared to Coniston and the Sudbury Core at all depths.

In Falconbridge, concentrations of nickel, copper, cobalt, arsenic and lead were higher in the residential properties than in the park properties. Refer to Table 7.1.5.2. Due to the extremely low n-values for school properties at all depths, comparisons with this group were very general. The n-value was 3 out of a total of 220 urban soil samples at 0 - 5 cm, and zero out of 217 samples at depth.

Table 7.1.5.2: Summary Statistics for All 0-5 cm Urban Soil Samples from Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 199																		
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7080	0.4	11	32	0.4	4380	28	11	87	13000	17	2100	140	0.75	140	0.5	21	24	33
1st quartile	7900	0.4	31	41	1.5	5900	33	32	460	16000	42	2400	160	0.75	550	1.0	27	26	56
Median	9000	0.4	52	51	2.2	7500	41	51	810	21000	71	2700	180	2.4	850	2.0	34	29	71
3rd quartile	10000	0.4	110	58	3.0	9600	52	75	1200	27000	130	3200	200	3.9	1300	4.0	39	33	100
95th percentile	12000	1.2	190	71	4.5	13000	73	111	1910	38000	200	4010	240	8.1	2110	6.0	45	38	151
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	5700	290	14	3700	12	51	44	240
Mean	9059	0.5	74	50	2.3	8167	45	56	874	22025	88	2864	182	2.9	956	2.7	33	30	80
CV (std. dev./mean)	19%	85%	81%	26%	53%	53%	34%	60%	68%	36%	76%	24%	19%	79%	67%	69%	25%	17%	51%
Skewness	0.5	4.7	1.2	0.0	0.4	4.0	0.8	0.8	0.8	0.9	1.4	1.1	0.2	1.6	1.0	1.5	-0.3	0.1	1.3
Schools and Daycares 0 to 5 cm				n = 3															
Minimum	6100	0.4	2.5	26	0.4	2500	31	11	46	12000	11	3400	190	0.75	61	0.5	19	26	27
Median	8700	0.4	2.5	43	0.4	6300	31	12	58	13000	20	3400	210	1.5	110	0.5	38	30	35
Maximum	9800	0.4	2.5	46	1.0	7000	35	13	66	16000	21	4200	220	1.8	120	0.5	42	32	36
Mean	8200	0.4	2.5	38	0.6	5267	32	12	57	13667	17	3667	207	1.4	97	0.5	33	29	33
Parks 0 to 5 cm				n = 18															
Minimum	6500	0.4	2.5	22	0.4	3100	24	8	44	12000	6	1800	130	0.75	68	0.5	22	25	17
10th percentile	8050	0.4	5.0	28	0.4	3400	26	10	54	12000	10	1940	140	0.75	87	0.5	25	26	20
1st quartile	8800	0.4	12	29	0.4	3500	26	15	88	13000	14	2500	150	0.75	120	1.0	27	26	25
Median	9300	0.4	34	36	0.4	3550	37	22	325	20500	22	2850	170	0.75	385	1.5	32	31	31
3rd quartile	9800	0.4	49	43	0.9	7600	39	34	480	27000	33	3400	230	1.60	690	2.0	34	35	47
95th percentile	11450	0.5	73	44	3.1	10450	61	93	1375	41600	73	5455	268	2.29	1905	3.2	35	52	82
Maximum	14000	1.2	84	45	4.2	13000	73	130	1800	45000	110	6900	310	2.80	2500	4.0	35	56	96
Mean	9456	0.4	34	35	1.0	5206	38	34	456	21722	31	3189	187	1.17	601	1.7	31	33	39
CV (std. dev./mean)	16%	42%	70%	20%	116	57%	34%	97%	110%	46%	86%	42%	27%	56%	116%	63%	14%	26%	57%
Skewness	1.2	4.2	0.4	-0.2	1.9	1.6	1.5	2.0	1.6	1.1	2.0	1.6	1.2	1.3	1.7	0.7	-1.0	1.6	1.4

All results are in µg/g dry weight.

At 0 - 5 cm, concentrations of nickel, copper, cobalt, arsenic and lead were generally up to two times higher in the residential area starting from the 20th to 60th percentile. At 5 - 10 cm, concentrations of these elements were up to two times higher in the residential area starting from the 70th to 90th percentile. Concentrations of these elements at 10 - 20 cm, however, were higher in park properties from the 10th to 60th percentile and higher in the residential properties from the 70th percentile.

Concentrations of barium, cadmium, chromium, selenium and zinc in the residential properties at 0 - 5 cm were marginally higher than in the parks starting from the 10th to 30th percentile. Concentrations of barium, cadmium and zinc in the residential properties at the lower two depth intervals were marginally higher than in the parks starting from the 10th to 95th percentile. At these two depths, chromium and iron concentrations were marginally higher in park properties starting from the 30th to 70th percentile.

Generally, park concentrations for nickel, copper, cobalt, arsenic, and to a lesser extent lead, were considerably higher in Falconbridge compared to the Sudbury Core and Outer and Inner Sudbury Communities at all depths. School concentrations were lower compared to the Sudbury Core and Coniston but were similar to marginally lower compared to the Outer Sudbury Communities at the surface.

There were substantially more exceedences of Table A and F in Falconbridge than in Coniston and the Sudbury Core. Table 7.1.5.3 summarizes the number of urban soil samples that exceeded the Table F and Table A criteria in Falconbridge.

Table 7.1.5.3: Summary of Table F and Table A Exceedences for Urban Soil Samples in Falconbridge

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	14 (6%)	13 (6%)	8 (4%)	0	0	0
Arsenic	187 (85%)	195 (90%)	192 (88%)	184 (84%)	193 (89%)	186 (86%)
Cadmium	167 (76%)	113 (52%)	50 (23%)	0	0	0
Chromium	15 (7%)	21 (10%)	12 (6%)	0	0	0
Cobalt	179 (81%)	163 (75%)	100 (46%)	135 (61%)	93 (43%)	29 (13%)
Copper	191 (87%)	204 (94%)	199 (92%)	178 (81%)	183 (84%)	138 (64%)
Lead	51 (23%)	49 (23%)	17 (8%)	9 (4%)	12 (6%)	1
Molybdenum	89 (40%)	5 (2%)	4 (2%)	0	0	0
Nickel	219 (100%)	210 (97%)	212 (98%)	191 (87%)	194 (89%)	187 (86%)
Selenium	150 (68%)	151 (70%)	117 (54%)	1	1	0
Vanadium	0	2 (1%)	4 (2%)	0	0	0
Zinc	7 (3%)	5 (2%)	0	0	0	0
No. of Samples	220	217	217	220	217	217

Nickel, copper, cobalt arsenic and lead concentrations exceeded Table A at all depths. Selenium concentrations exceeded Table A only at 0 - 5 cm and 5 - 10 cm depth intervals. No other elements exceeded Table A at any depths in Falconbridge. It should be noted that molybdenum concentrations were considerably higher in Falconbridge and had more Table F exceedences than any other community.

At 0 - 5 cm, 61% of the urban soil samples exceeded Table A for cobalt, 81% for copper, 84% for arsenic and 87% for nickel. At the same depth 76% exceeded Table F for cadmium, 81% for cobalt, 85% for arsenic, 87% for copper and over 99% for nickel. Generally the number of exceedences of Table F decrease with depth for antimony, cadmium, cobalt, lead, molybdenum and zinc. The number of Table F exceedences for arsenic, chromium, copper, nickel, selenium and vanadium remained high at all depths, increased slightly at 5 - 10 cm, and then decreased slightly at 10 - 20 cm. The number of Table A exceedences generally decreased with depth for cobalt and selenium. The number of Table A nickel, copper, arsenic and lead exceedences remained high at all depths, increased slightly at 5 - 10 cm, and then decreased slightly at 10 - 20 cm.

Concentration dot maps were created to illustrate the spatial distribution of chemical concentrations for 10 elements. The highest concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, chromium, iron, selenium and zinc in the 0 - 5 cm urban soil occurred in the centre and east side of the community between Edison Road and Lakeshore Drive, directly west of the smelter.

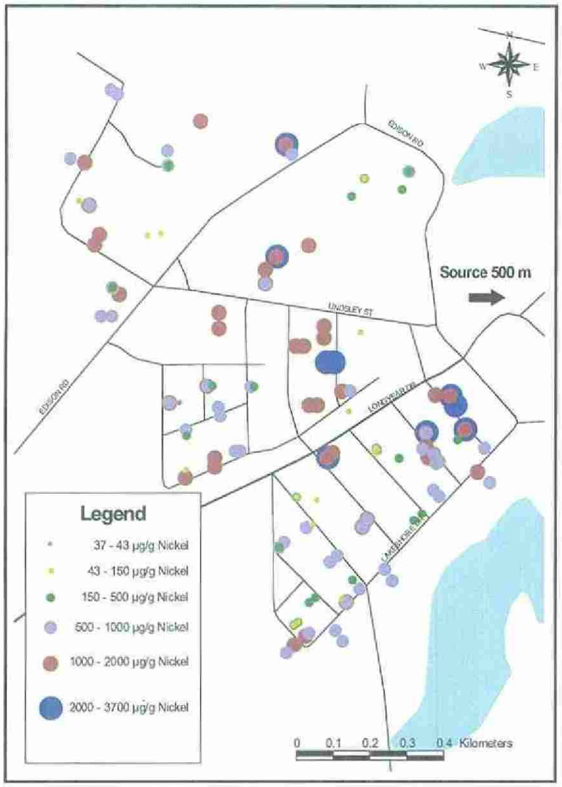

Figure 7.1.5.1: Ni concentrations in urban 0 - 5 cm soil in Falconbridge

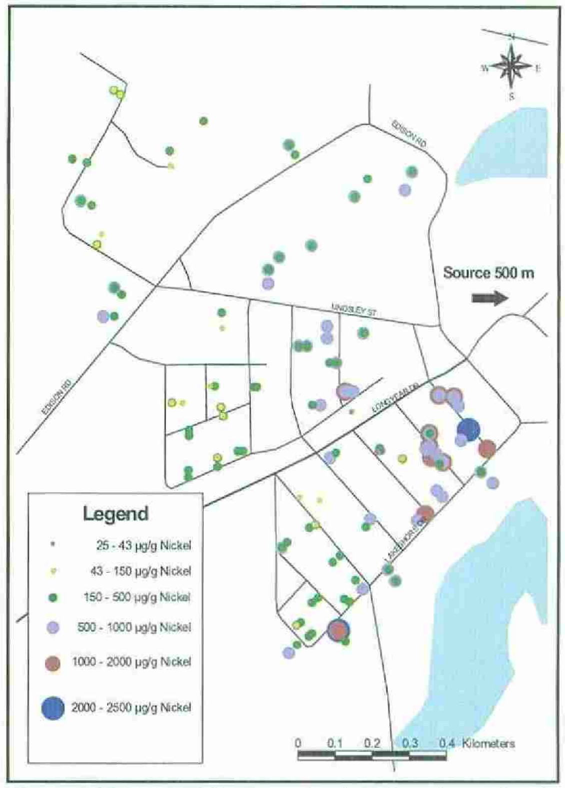

Figure 7.1.5.2: Ni concentrations in urban 10-20 cm soil in Falconbridge

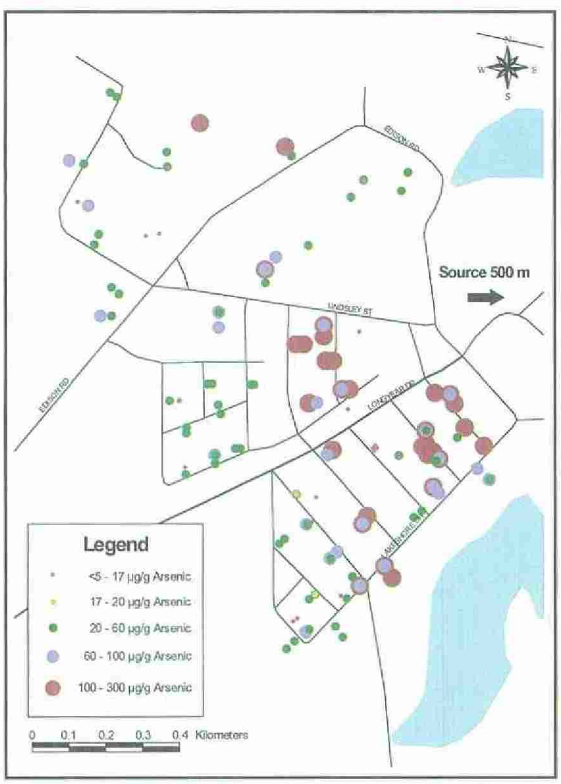

Figure 7.1.5.3: As concentrations in urban 0 - 5 cm soil in Falconbridge

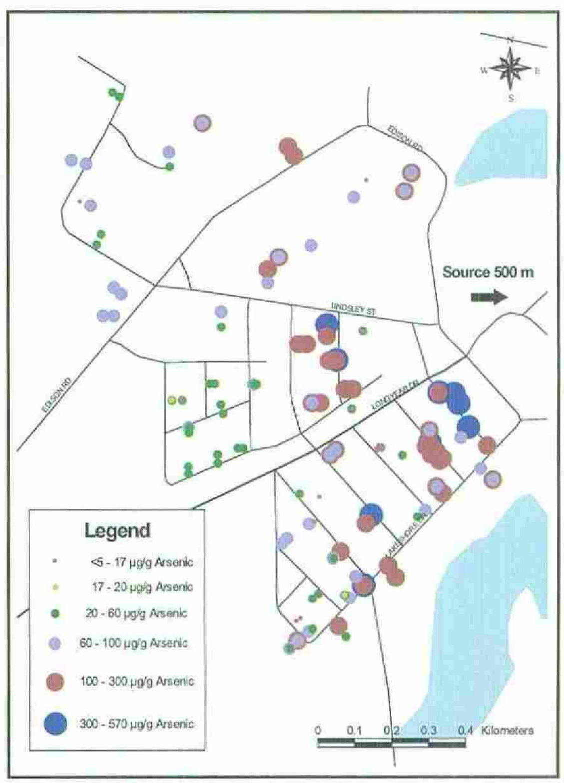

Figure 7.1.5.4: As concentrations in urban 5 - 10 cm soil in Falconbridge

At 10 - 20 cm, the concentrations of these elements appeared to decrease overall, although nickel, copper, cobalt and arsenic concentrations generally remained above Table A in this area. For an example of the spatial distributions for nickel in the 0 - 5 and 10 - 20 cm soil depths, refer to Figures 7.1.5.1 and 7.1.5.2.

Arsenic concentrations appeared to be the highest at 5 - 10 cm and were elevated in the centre and east side of the community from north of Edison Road to Lakeshore Drive. For an example of the spatial distributions for arsenic in the 0 - 5 and 5 - 10 cm soil depths, refer to Figure 7.1.5.3 and 7.1.5.4. While iron and chromium concentrations generally decreased with depth, the highest concentrations of these elements occurred at 10 - 20 cm in the ball diamonds in the northeast portion of the community. Refer to Section 10.2.2 for concentration dot maps of nickel, copper, cobalt, arsenic, lead, cadmium, chromium, iron, selenium and zinc at 0 - 5 and 10 - 20 cm in Falconbridge.

As discussed previously, the data was sorted by nickel concentrations to differentiate between the Group A, B and C depth trends. The assumption with this procedure was that the other elements shared similar proportions of sample locations exhibiting each depth trend as nickel. This assumption appeared to be accurate for the majority of the elements in Falconbridge. Arsenic, cadmium and chromium, however, had considerably different proportions of sample locations exhibiting each depth trend as compared to nickel. As a result, these three elements were sorted separately by their own concentrations to differentiate between depth trends.

In Falconbridge, all three depth trends (Groups A, B and C) were observed at varying numbers of sample locations. Nickel, copper, cobalt, lead and zinc concentrations, in 49% of the sample locations, showed a strong visual trend of decreasing concentration with depth (Group A) in all quarters. Average concentrations at surface were 1.6 to 4.4 times the average concentrations at 10 to 20 cm for these elements, for all quarters.

In 85% of the sample locations, cadmium exhibited a strong visual trend of decreasing concentrations with increasing depth (Group A) while chromium exhibited the same trend in 62% of sample locations. Both elements showed this trend in all quarters. The first quarter for cadmium showed a weaker Group A trend (1.8 times) than the other quarters. The average concentrations in the first quarter for cadmium were at or below the analytical method detection limit. Average surface cadmium concentrations were 3.0 to 3.8 times the average concentrations at 10 - 20 cm for the second through fourth quarters. Average concentrations for chromium were 1.3 to 1.8 times greater at surface than at 10 - 20 cm for all quarters. Figure 7.1.5.5 depicts the Group A depth profile for cadmium in Falconbridge.

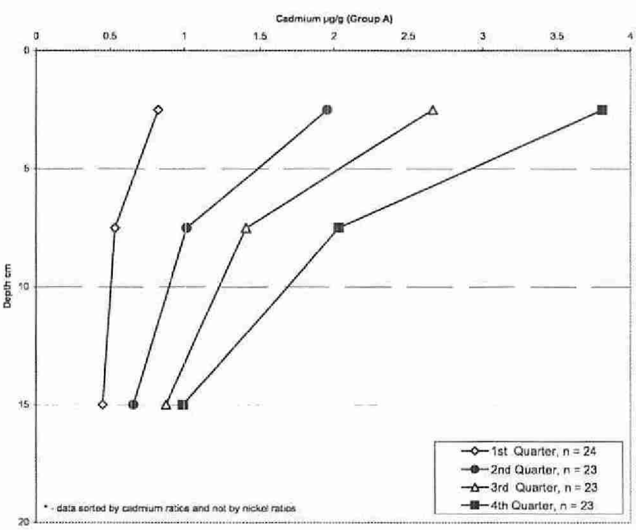

Figure 7.1.5.5: Falconbridge, Cd depth profiles, Group A.

Only 19% of the sample locations showed a Group A trend for arsenic. Arsenic showed a strong visual trend of decreasing concentrations with depth in both halves. The average concentrations at surface were 2.0 to

2.2 times the average concentrations at 10 - 20 cm in both halves. Figure 7.1.5.6 depicts the Group A depth profile for arsenic in Falconbridge.

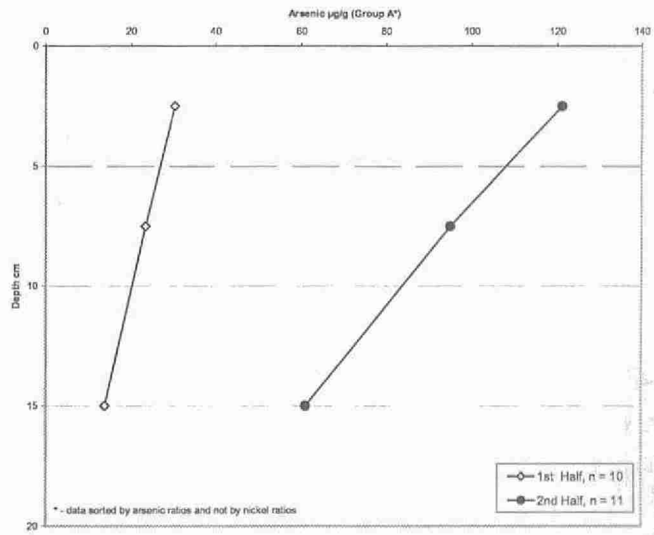

Figure 7.1.5.6: Falconbridge, As depth profiles, Group A.

In 49% of the sample locations, iron showed a strong visual trend of aerial deposition in the third and fourth quarters. A weak trend of aerial deposition was present in the first and second quarters. Average concentrations of iron at surface were 1.1 to 1.7 times the average concentrations at 10 - 20 cm. In the same percentage of sample locations, selenium had a strong visual trend of aerial deposition in the fourth quarter (2.3 times) and a weak trend in the second and third quarters (1.2 to 1.7 times). No observable change with depth was present in the first quarter for selenium.

Average aluminum and vanadium concentrations, in 49% of the sample locations, showed no observable change with depth or showed a visual trend of increasing concentration with depth (1.1 to 1.3 times). This trend was consistent with Group C rather than Group A. A weak trend of maximum concentration at 5 - 10 cm (Group B) was also observed in one quarter for vanadium (1.1 times). The multiple depth trends present for these elements was likely an artifact of the sorting process. Aluminum and vanadium tend to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore would not be expected to show similar depth trends to nickel. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.5 for graphs of the depth profiles for the elements discussed above.

In Falconbridge, nickel and copper concentrations in 39% of the sample locations showed a strong visual trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Both elements showed this trend in all quarters. Average concentrations at 5 - 10 cm were 1.2 to 1.5 times the average concentrations at surface for these elements for all quarters.

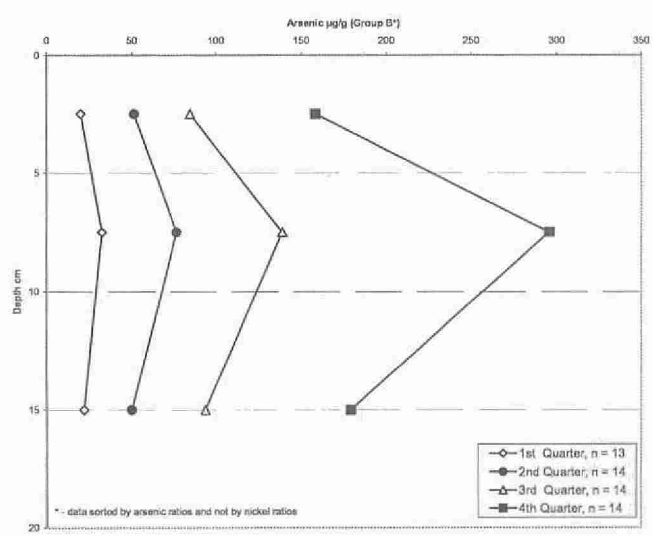

Figure 7.1.5.7: Falconbridge, As depth profiles, Group B.

In 52% of the sample locations, arsenic exhibited a strong visual trend of maximum concentrations at 5 - 10 cm (Group B) while chromium exhibited the same trend in 19% of sample locations. Both elements showed this trend in all quarters or halves. Average arsenic concentrations at 5 - 10 cm were 1.5 to 1.9 times the average concentrations at

surface for all quarters. Average concentrations for chromium were 1.1 to 1.2 times greater at 5 - 10 cm than at surface for both halves. Figure 7.1.5.7 depicts the Group B depth profile for arsenic in Falconbridge.

Only 10% of the sample locations showed a Group B trend for cadmium. Cadmium showed a strong visual trend of decreasing concentrations with depth. The average concentration at 5 - 10 cm was 1.2 times the average concentration at surface. Due to the small proportion of sample locations exhibiting a Group B trend for cadmium, the data was not divided into halves, thirds or quarters for graphing purposes. Refer to Figure 7.1.5.8.

In 39% of the sample locations, cobalt, lead, selenium and iron showed a strong visual Group B trend in the third and fourth quarters. Zinc exhibited a similar trend only in the fourth quarter. Lead also exhibited a strong visual Group B trend in the second quarter while selenium and iron showed a weak Group B trend in the second quarter. The remaining quarters for cobalt, lead, selenium, iron and zinc exhibited either no observable change with depth or a weak trend of decreasing concentration with depth, consistent with Group A. Average concentrations of cobalt, lead, selenium and iron at 5 - 10 cm were 1.1 to 1.7 times the average concentrations at surface in the third and fourth quarters. Average zinc concentrations were approximately 1.1 times greater at 5 - 10 cm than at surface in the fourth quarter.

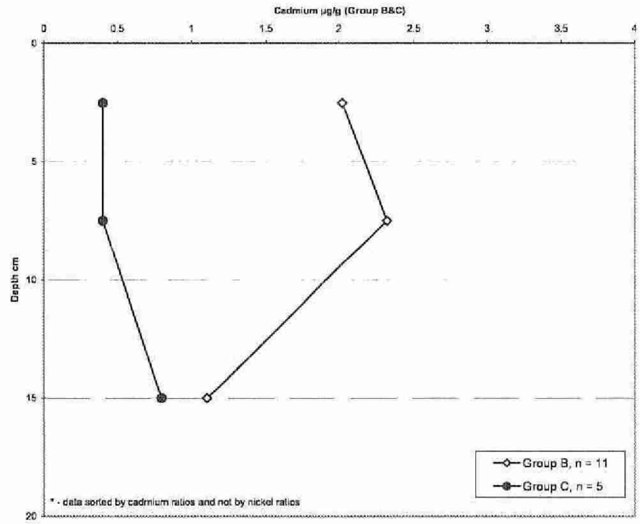

Figure 7.1.5.8: Falconbridge, Cd depth profiles, Group B & C.

Average aluminum and vanadium concentrations in 39% of the sample locations showed no observable change with depth in the first and second quarters. These elements showed a weak Group B trend (1.1 times) in the third quarter and a strong Group B trend in the fourth quarter (1.3 to 1.5 times).

In Falconbridge, nickel, copper, cobalt, lead and selenium concentrations in 13% of the sample locations showed a strong visual trend of increasing concentration with increasing depth, consistent with Group C. This trend was present in all halves for nickel, copper, cobalt and lead. This trend was also present in the second half for selenium with average concentrations in the first half showing no observable change with depth and concentrations were near the analytical MDL. Average concentrations at 10 - 20 cm were 1.5 to 1.9 times the average concentrations at surface for cobalt, lead and selenium while average concentrations were 2.0 to 2.7 times greater at 10 - 20 cm than surface for nickel and copper.

In 28% of the sample locations, arsenic exhibited a strong visual trend (2.0 to 2.5 times) of increasing concentration with increasing depth, consistent with Group C, while chromium exhibited a similar trend (2.2 times) in 18% of sample locations. Arsenic showed this trend in all thirds while chromium showed a weaker trend (1.2 times) in the first half. Figure 7.1.5.9 depicts the Group C depth profile for arsenic in Falconbridge.

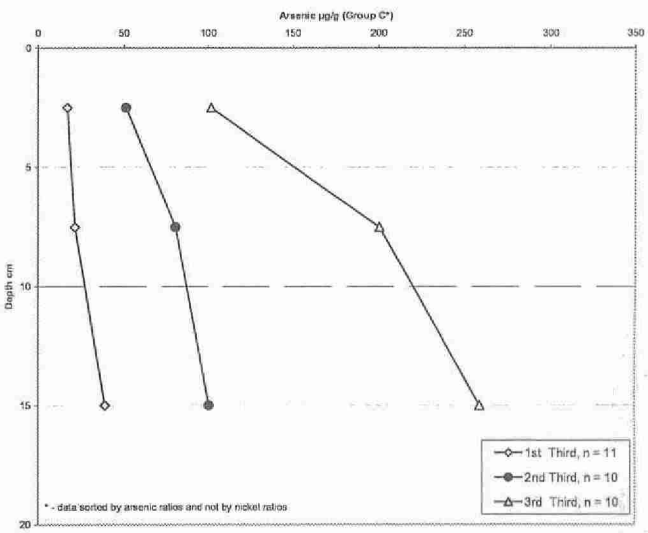

Figure 7.1.5.9: Falconbridge, As depth profiles, Group C.

Only 5% of the sample locations showed a Group C trend for cadmium. Cadmium showed a strong trend (2.0 times) of increasing concentrations with depth. However, the average concentrations were at or near the analytical MDL, with only 5% of the sample locations showing this trend, and the sample size was extremely small. Due to the small proportion of sample locations exhibiting a Group C trend for cadmium, the data was not divided into halves, thirds or quarters for graphing purposes.

In 13% of the sample locations, aluminum, vanadium, zinc and iron showed weak Group C trends (1.1 to 1.7 times). Zinc showed this trend in both halves while aluminum, vanadium and iron only showed this trend in the second half. The average concentrations in the first halves of aluminum, vanadium and iron showed no observable change with depth.

Overall, nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium and zinc exhibited a strong aerial deposition trend from surface. These sample locations appeared to be unaffected by landscaping practices. The percentage of sample locations that exhibited this trend, however, varied between elements. Only a small percentage of sample locations exhibited this trend for arsenic, while approximately 50% exhibited this trend for nickel, copper, cobalt, lead, selenium, iron and zinc, 62% for chromium and 85% for cadmium. These differences between elements may be attributed to numerous factors including element form, element mobility, smelter process changes and differing chemical composition of the ore over time. For example, cadmium may be a relatively recent emission while arsenic may have historically been emitted at greater volumes. A large number of sample locations (81%) for arsenic showed strong trends of maximum concentration below surface while only a small percentage of sample locations showed this trend for cadmium. Approximately 40 to 50% of sample locations showed this trend for the remaining elements. These elevated concentrations may still be attributed to aerial deposition, however, have also likely been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. As discussed above, other factors may also play a role in the distribution of the depth trends between elements.

In Falconbridge, ten elements including nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc, showed stronger indications of aerial deposition than in Coniston, the Sudbury Core or the Inner Sudbury Communities. In those communities, evidence of aerial deposition varied in strength, while in Falconbridge strong evidence was present for all ten elements.

Similar to Coniston, Falconbridge only had 49% of sample locations showing this trend for most elements. In Coniston, only 44% of the sample locations showed a strong trend of aerial deposition from surface, compared to approximately 75% of the locations in the Inner Sudbury Communities and the Sudbury Core. Unlike Coniston, chromium and cadmium in Falconbridge showed a strong trend of aerial deposition in 62% and 85% of sample locations, respectively. Similar to Coniston, more than half of the sample locations in Falconbridge showed evidence of buried contamination for most elements, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm. Arsenic showed evidence of buried contamination in approximately 80% of the sample locations.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at all three depths. It should be noted that 12 soil samples collected from baseball diamonds in the northeast portion of Falconbridge were removed from the data set and not included in the Pearson's and Spearman's statistical correlations. These baseball diamonds were built on slag material and had particularly high concentrations of iron and chromium below the surface. The samples were removed because they were outliers and were undoubtedly influencing the correlations. These samples were removed because they contained pieces of slag material at the 5 - 10 cm and 10 - 20 cm soil depth, and would have strongly influenced the correlations as outliers. Refer to Tables 7.1.5.4 to 7.1.5.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths in Falconbridge, and Section 10.4.5 for the full results of the analysis. In Tables 7.1.5.4 to 7.1.5.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Table 7.1.5.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Falconbridge

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.0*	*0.3*	*-0.2*	*0.2*	*-0.2*	*-0.2*	*0.0*	*-0.1*	*0.2*	*0.5*	*-0.2*	*-0.1*	***0.8***	*0.7*	*-0.1*
As	0.0	1	*0.7*	***0.8***	*0.7*	***0.8***	***0.9***	***0.9***	***0.9***	*0.3*	*0.1*	***0.8***	***0.8***	*0.0*	*0.3*	***0.8***
Ba	0.3	0.6	1	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.5*	*0.5*	*0.7*	*0.6*	*0.5*	*0.6*	***0.8***
Cd	-0.2	0.7	0.7	1	*0.7*	***0.9***	***0.9***	***0.8***	***0.9***	*0.4*	*0.1*	***0.9***	*0.7*	*0.0*	*0.2*	***0.9***
Cr	0.2	0.7	0.7	0.7	1	*0.7*	*0.7*	***0.8***	***0.8***	*0.5*	*0.2*	*0.6*	*0.7*	*0.3*	*0.5*	*0.7*
Co	-0.2	**0.8**	0.7	**0.9**	0.7	1	***1.0***	***0.9***	***0.9***	*0.4*	*0.1*	***1.0***	*0.7*	*0.0*	*0.2*	***0.9***
Cu	-0.2	**0.8**	0.7	**0.8**	0.6	**1.0**	1	***0.9***	***0.9***	*0.3*	*0.1*	***1.0***	*0.7*	*0.0*	*0.2*	***0.9***
Fe	0.1	**0.9**	0.7	**0.8**	**0.8**	**0.9**	**0.9**	1	***0.9***	*0.5*	*0.2*	***0.9***	*0.7*	*0.1*	*0.5*	***0.8***
Pb	0.0	**0.8**	0.7	**0.8**	0.7	**0.8**	**0.8**	**0.8**	1	*0.3*	*0.1*	***0.8***	***0.8***	*0.0*	*0.3*	***0.9***
Mg	0.2	0.2	0.5	0.4	0.5	0.4	0.3	0.4	0.3	1	*0.4*	*0.4*	*0.3*	*0.4*	*0.4*	*0.4*
Mn	0.5	0.0	0.5	0.1	0.2	0.1	0.1	0.2	0.1	0.4	1	*0.1*	*0.1*	*0.6*	*0.7*	*0.2*
Ni	-0.2	0.7	0.7	**0.8**	0.6	**1.0**	**1.0**	**0.9**	0.7	0.3	0.1	1	*0.7*	*0.0*	*0.2*	***0.8***
Se	0.0	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.1	0.7	1	*0.1*	*0.3*	*0.7*
Sr	0.7	0.0	0.5	0.1	0.3	0.1	0.0	0.2	0.1	0.4	0.6	0.1	0.1	1	*0.6*	*0.1*
V	0.7	0.4	0.6	0.2	0.6	0.3	0.3	0.5	0.4	0.4	0.7	0.2	0.4	0.6	1	*0.3*
Zn	-0.1	**0.8**	0.7	**0.8**	0.6	**0.8**	**0.8**	**0.8**	**0.8**	0.3	0.1	**0.8**	0.7	0.1	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.5.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Falconbridge

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.2*	*0.5*	*0.1*	*0.3*	*0.1*	*0.1*	*0.3*	*0.2*	*0.5*	*0.5*	*0.1*	*0.1*	*0.7*	*0.7*	*0.2*
As	0.1	1	*0.7*	***0.8***	*0.7*	***0.9***	***0.9***	***0.9***	***0.9***	*0.2*	*0.0*	***0.8***	***0.8***	*0.1*	*0.3*	***0.8***
Ba	0.5	0.6	1	*0.7*	*0.7*	*0.7*	*0.7*	***0.8***	***0.7***	*0.6*	*0.4*	*0.7*	*0.6*	*0.5*	*0.6*	***0.8***
Cd	0.1	0.7	0.7	1	***0.8***	***0.9***	***0.9***	***0.8***	***0.8***	*0.4*	*0.1*	***0.9***	***0.8***	*0.2*	*0.3*	***0.8***
Cr	0.2	0.7	0.6	**0.8**	1	***0.8***	***0.8***	***0.8***	***0.8***	*0.5*	*0.1*	***0.8***	*0.7*	*0.4*	*0.4*	***0.8***
Co	0.1	**0.8**	0.7	**0.9**	0.7	1	***1.0***	***0.9***	***0.9***	*0.4*	*0.2*	***1.0***	***0.8***	*0.2*	*0.4*	***0.9***
Cu	0.1	**0.9**	0.7	**0.9**	0.7	**1.0**	1	***0.9***	***0.9***	*0.4*	*0.1*	***1.0***	***0.8***	*0.1*	*0.4*	***0.9***
Fe	0.3	**0.9**	0.7	**0.8**	0.7	**0.9**	**1.0**	1	***0.9***	*0.5*	*0.2*	***0.9***	*0.7*	*0.3*	*0.5*	***0.8***
Pb	0.1	**0.9**	0.7	**0.8**	0.6	0.7	**0.8**	**0.8**	1	*0.3*	*0.0*	***0.8***	***0.8***	*0.1*	*0.3*	***0.9***
Mg	0.5	0.2	0.5	0.4	0.3	0.4	0.4	0.5	0.3	1	*0.5*	*0.4*	*0.3*	*0.6*	*0.6*	*0.4*
Mn	0.5	-0.1	0.4	0.0	0.0	0.1	0.0	0.1	-0.1	0.4	1	*0.2*	*0.0*	*0.5*	*0.7*	*0.2*
Ni	0.1	**0.8**	0.7	**0.9**	0.7	**1.0**	**0.9**	**0.9**	0.7	0.4	0.1	1	***0.8***	*0.2*	*0.4*	***0.9***
Se	0.1	**0.8**	0.6	0.7	0.7	**0.8**	**0.8**	**0.8**	0.7	0.3	0.0	**0.8**	1	*0.1*	*0.3*	***0.8***
Sr	0.7	0.0	0.5	0.2	0.3	0.2	0.1	0.2	0.0	0.6	0.5	0.2	0.1	1	*0.6*	*0.2*
V	0.7	0.3	0.6	0.3	0.3	0.4	0.4	0.5	0.3	0.5	0.7	0.4	0.3	0.6	1	*0.4*
Zn	0.2	**0.8**	0.7	**0.8**	0.7	**0.8**	**0.8**	**0.8**	**0.8**	0.3	0.1	**0.8**	0.7	0.3	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.5.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Falconbridge

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.2*	*0.5*	*0.1*	*0.4*	*0.2*	*0.2*	*0.5*	*0.2*	*0.3*	*0.4*	*0.2*	*0.1*	***0.8***	*0.6*	*0.3*
As	0.0	1	*0.7*	*0.6*	*0.6*	***0.9***	***0.9***	***0.8***	***0.9***	*-0.2*	*-0.2*	***0.9***	*0.7*	*0.1*	*0.1*	***0.8***
Ba	0.6	0.6	1	*0.6*	***0.8***	*0.7*	*0.7*	*0.7*	*0.7*	*0.3*	*0.3*	*0.7*	*0.6*	*0.4*	*0.5*	***0.8***
Cd	0.1	0.6	0.5	1	*0.6*	*0.7*	*0.7*	*0.6*	*0.7*	*0.1*	*0.1*	*0.7*	*0.6*	*0.1*	*0.2*	*0.7*
Cr	0.4	0.5	0.6	0.7	1	***0.8***	*0.7*	*0.7*	*0.7*	*0.3*	*0.2*	***0.7***	*0.6*	*0.4*	*0.4*	***0.8***
Co	0.1	0.7	0.5	**0.8**	0.7	1	***1.0***	***0.8***	***0.9***	*0.0*	*0.0*	***1.0***	***0.8***	*0.2*	*0.2*	***0.9***
Cu	0.1	**0.8**	0.5	**0.8**	0.7	**0.9**	1	***0.8***	***1.0***	*0.0*	*-0.1*	***0.9***	***0.8***	*0.1*	*0.2*	***0.9***
Fe	0.4	0.7	0.6	0.7	**0.8**	**0.9**	**0.9**	1	***0.8***	*0.3*	*0.2*	*0.7*	*0.6*	*0.4*	*0.5*	*0.7*
Pb	0.1	**0.9**	0.6	0.7	0.6	**0.8**	**0.9**	**0.8**	1	*0.0*	*-0.1*	***0.9***	*0.7*	*0.1*	*0.1*	***0.9***
Mg	0.5	-0.1	0.4	0.2	0.5	0.1	0.1	0.4	0.0	1	*0.5*	*0.0*	*0.1*	*0.4*	*0.4*	*0.1*
Mn	0.5	-0.2	0.4	0.0	0.2	-0.1	-0.1	0.2	-0.1	0.5	1	*0.0*	*-0.1*	*0.6*	*0.7*	*0.2*
Ni	0.1	**0.8**	0.5	**0.8**	0.7	**1.0**	**0.9**	**0.8**	**0.8**	0.1	-0.1	1	***0.8***	*0.2*	*0.2*	***0.9***
Se	0.1	**0.9**	0.6	0.7	0.6	**0.8**	**0.8**	0.7	**0.8**	0.1	-0.1	**0.8**	1	*0.1*	*0.1*	*0.7*
Sr	**0.8**	-0.1	0.5	0.0	0.3	0.1	0.0	0.2	0.0	0.4	0.5	0.1	0.0	1	*0.6*	*0.2*
V	0.7	0.0	0.5	0.2	0.4	0.1	0.1	0.4	0.1	0.6	0.7	0.1	0.1	0.5	1	*0.3*
Zn	0.3	0.6	0.7	0.7	0.6	0.7	**0.8**	0.7	**0.8**	0.2	0.2	0.7	0.7	0.2	0.2	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

At 0 - 5 cm, using Pearson's and Spearman's, nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc concentrations were strongly correlated with each other. At this depth, barium, chromium and selenium were moderately correlated with each other and with all 8 of these elements using Pearson's and Spearman's. As an exception, chromium was not strongly or moderately correlated with nickel, copper or zinc, and barium was not strongly or moderately correlated with arsenic or selenium using Pearson's. At this depth, correlations were slightly stronger using Spearman's than Pearson's, especially for arsenic, lead and zinc. An example of the nickel vs arsenic and cadmium

vs nickel correlations are presented in Figures 7.1.5.10 and 7.1.5.11 below. Refer to Section 10.4.5 for additional correlation figures.

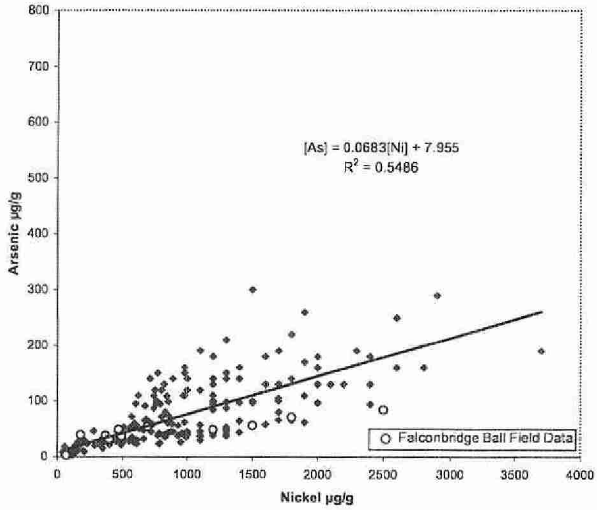

Fig 7.1.5.10: As vs. Ni, 0 - 5 cm, Falconbridge

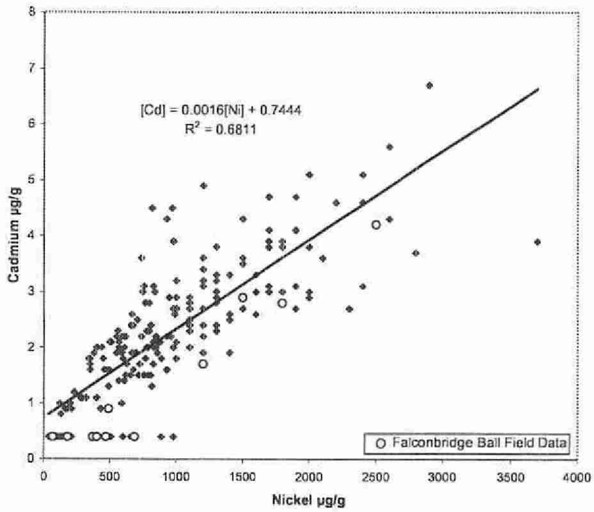

Fig 7.1.5.11: Cd vs. Ni, 0 - 5 cm, Falconbridge

Molybdenum concentrations were considerably higher in Falconbridge than in any other community at the surface. A moderate statistical correlation was observed between molybdenum and chromium (R= 0.7) at the 0 - 5 cm soil depth using Pearson's, and dropped off to R = 0.2 and R = 0.3 at 5 - 10 cm and 10 - 20 cm respectively. Refer to Section 10.4.5 for the full version of correlations in Falconbridge, which include molybdenum.

The correlation between nickel, copper, cobalt, arsenic and lead remained similar at all depth intervals in Pearson's and Spearman's with minor fluctuations in the level of significance with nickel, cobalt and arsenic using Pearson's.

Cadmium, iron and zinc concentrations remained strongly correlated with each other and with nickel, copper, cobalt, arsenic and lead using Pearson's and Spearman's at 5 - 10 cm. These three elements remained correlated with the 5 elements associated with smelter emissions at 10 - 20 cm, however, the level of significance varied between strong and moderate for both Pearson's and Spearman's. As an exception, cadmium was only moderately correlated with nickel, copper, cobalt, lead and zinc using Spearman's at this depth.

As mentioned earlier, 12 soil samples collected from baseball diamonds in the northeast portion of Falconbridge were removed from the data set and not included in the Pearson's and Spearman's correlations. These baseball diamonds were built on slag material and had particularly high concentrations of iron and chromium below the surface. Figure 7.1.5.12 illustrates the relatively high iron concentrations in the baseball diamond samples compared with the rest of Falconbridge.

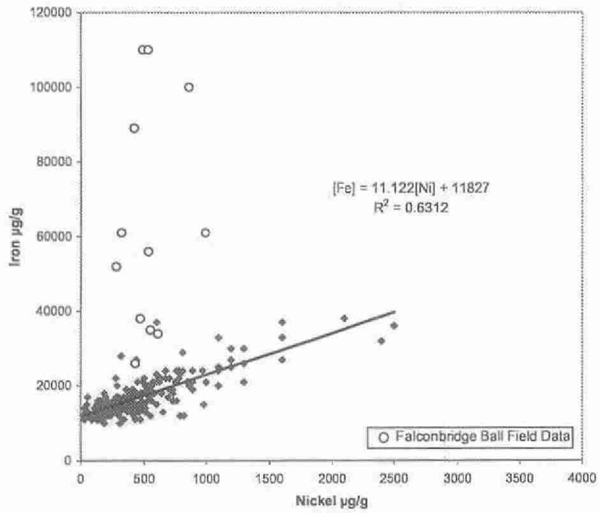

Fig 7.1.5.12: Fe vs. Ni, 10 - 20 cm, Falconbridge

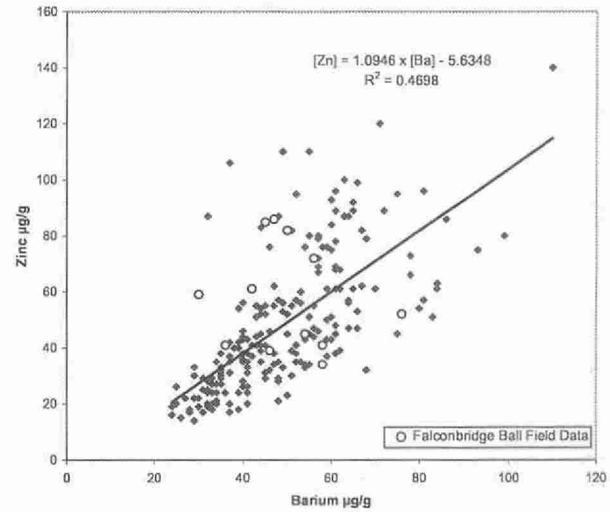

Fig 7.1.5.13: Zn vs. Ba, 10 - 20 cm, Falconbridge

Generally barium concentrations remained moderately correlated with nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc in 5 - 10 cm using Pearson's and Spearman's. At 10 - 20 cm, these correlations were strong and generally strong using Spearman's, however, dropped of to only one moderate correlation with zinc using Pearson's. Refer to Figure 7.1.5.13 for an example of the strong barium and zinc correlation at depth.

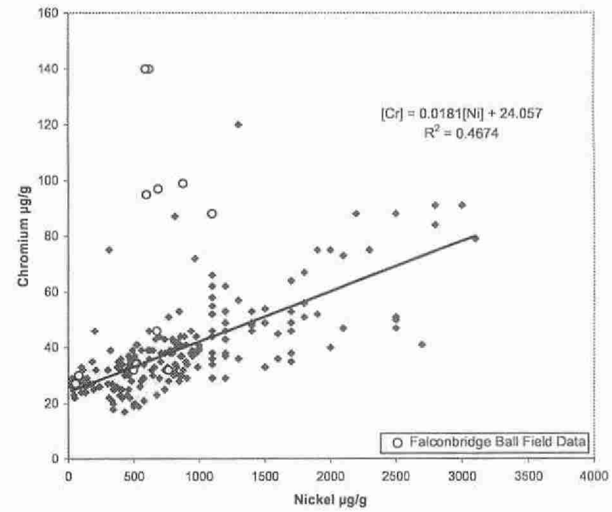

Fig 7.1.5.14: Cr vs. Ni, 5 - 10 cm, Falconbridge

Chromium concentrations remained moderately correlated with nickel, copper, cobalt, arsenic, iron and zinc, became moderately correlated with selenium, and strongly correlated with cadmium using Pearson's at 5 - 10 cm. At this depth, chromium was strongly correlated with these 8 elements including lead using Spearman's, with the exception of arsenic and selenium which were only moderately correlated. The number of strong and moderate chromium correlations decreased at the 10 - 20 cm soil depth. Chromium was moderately correlated with nickel, copper, cobalt and cadmium, and became strongly correlated with iron using Pearson's. Chromium was also moderately correlated with nickel, copper, iron and lead, and strongly correlated with barium, cobalt and zinc using Spearman's. Refer to Figure 7.1.5.14 for an example of the strong nickel vs chromium correlation at 5 - 10 cm.

Selenium correlations were the strongest below 0 - 5 cm. Selenium was generally strongly correlated with nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc, and moderately correlated with chromium at 5 - 10 cm using Pearson's and Spearman's. Selenium correlations varied between strong and moderate for these 9 elements at the 10 - 20 cm depth for Pearson's, however, dropped off for cadmium, chromium and iron using Spearman's. The selenium correlations with nickel, copper and cobalt were consistently strong using both Pearson's and Spearman's at 5 - 10 cm and 10 - 20 cm. A large number of selenium concentrations were at or near

the laboratory MDL. Selenium correlations would likely be stronger if more sensitive laboratory equipment had been used.

Aluminum and vanadium were moderately correlated with each other at all depths using Pearson's, and only at 0 - 5 cm and 5 - 10 cm using Spearman's. At 10 - 20 cm, aluminum and vanadium were not strongly or moderately correlated using Spearman's. Aluminum and strontium correlations varied between moderate and strong for all depths using Pearson's and Spearman's. Vanadium and manganese were moderately correlated with each other at all three depths using both Pearson's and Spearman's. This is different than other communities, including Coniston, where aluminum and vanadium correlations with other elements usually got stronger with depth.

The strong correlations of nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc at all depths indicate that concentrations of these elements in Falconbridge appear to be attributed to smelter emissions. The correlations of selenium, chromium and barium with each other and the elements associated with smelter emissions were moderate at surface and increased slightly with depth. The concentrations of these elements at all depths also appeared to be attributed to smelter emissions.

For the naturally occurring elements, correlations between aluminum, vanadium, strontium and manganese remained moderate and relatively constant with depth using Pearson's and Spearman's. Aluminum correlations with barium, chromium, iron and zinc started to develop with depth using Pearson's and Spearman's, (Al/Ba correlations increased from approximately R=0.3 at surface to R=0.6 at depth, Al/Cr increased from R=0.2 to R=0.4, Al/Fe increased from R= 0 to 0.5, and Al/Zn increased from R=0.1 to R=0.3). As discussed previously in this section and Sections 7.1.1 and 7.1.2, no evidence of aerial deposition was observed for aluminum or vanadium. These elements have been consistently present as indicators of the naturally occurring geology in the Outer and Inner Sudbury Communities, Coniston and the Sudbury Core.

Refer to Section 10.4.5 for a complete list of graphs showing selected element correlations at all three depths for the Inner Sudbury Communities.

In summary, the element concentrations at all depth intervals in Falconbridge were considerably higher and had more exceedences of MOE criteria than in Coniston, the Sudbury Core, and the Outer and Inner Sudbury Communities. Nickel, copper, cobalt arsenic and lead concentrations exceeded Table A at all depths. Selenium concentrations exceeded Table A only at the 0 - 5 cm and 5 - 10 cm depth intervals. No other elements exceeded Table A at any depth in Falconbridge. Molybdenum concentrations were higher in Falconbridge and had more Table F exceedences than in any other community. Generally the number of exceedences of Table F decreased with depth for antimony, cadmium, cobalt, lead, molybdenum and zinc. The number of exceedences for arsenic, chromium, copper, nickel, selenium and vanadium remained high at all depths. The number of Table A exceedences generally decreased with depth for cobalt and selenium. The number of nickel, copper, arsenic and lead exceedences remained high at all depths, increased slightly at 5 - 10 cm, and then decreased slightly at 10 - 20 cm.

Generally, the highest concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, chromium, iron, selenium and zinc in the 0 - 5 cm urban soil occurred in the centre and east side of the community, directly west of the smelter. At 10 - 20 cm, the concentrations of these elements decreased overall. Arsenic concentrations were the highest at 5 - 10 cm and were elevated in the

centre and east side of the community. While iron and chromium concentrations generally decreased with depth, the highest concentrations of these elements occurred at 10 - 20 cm in the baseball diamonds in the northeast portion of the community.

In Falconbridge, ten elements including nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc showed a strong aerial deposition trend from surface. For most elements, however, only 49% of sample locations showed this trend while cadmium and chromium showed this trend in 62% and 85% of sample locations, respectively. In more than half of the sample locations, most elements also showed evidence of buried contamination with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm. Arsenic showed evidence of buried contamination in approximately 80% of the sample locations.

The differing depth trends appeared to be the result of landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. The differences between elements in the percentage of sample locations showing these trends may be the result of numerous factors including: element form, element mobility, smelter process changes and differing chemical composition of the ore over time.

The strong correlations of nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc at all depths indicate that concentrations of these elements in Falconbridge appear to be attributed to smelter emissions. The correlations of selenium, chromium and barium with each other and the elements associated with smelter emissions were weak at the surface and increased slightly with depth. The concentrations of these elements at all depths also appeared to be attributed to smelter emissions. For the naturally occurring elements, correlations between aluminum, vanadium, strontium and manganese remained moderate and relatively constant with depth using Pearson's and Spearman's. Aluminum correlations with barium, chromium, iron and zinc started to increase with depth using Pearson's and Spearman's, however, did not become strongly or moderately correlated. This indicated that the soil at depth was still relatively disturbed as these correlations in other communities, at depth, strengthened, representing relatively undisturbed soil. This was further supported by the large number of Table A and F exceedances at depth as well as the large percentage of sample locations that exhibited maximum concentrations below surface. Based on this evidence, soil sampling in Falconbridge did not fully delineate the vertical extent of elevated concentrations related to smelter emissions.

7.1.6 Copper Cliff

In Copper Cliff, the surface soil concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron, zinc and barium were considerably higher than in Coniston, the Sudbury Core and the Outer and Inner Sudbury Communities. Depending on the element, the differences in concentrations began from the minimum value or 25th percentile. Refer to Table 7.1.6.1.

Table 7.1.6.1: Summary Statistics for Metals and Arsenic in Urban Soil in Copper Cliff of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Copper Cliff, n = 290																			
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	11000	10	2000	98	0.75	71	0.5	16	16	23
10th percentile	8590	0.4	6	45	0.4	4300	29	12	360	14000	25	2600	160	0.75	299	2.0	23	25	38
1st quartile	9500	0.4	9.0	52	0.8	5600	32	17	660	15000	41	3200	180	0.75	500	3.0	32	28	54
Median	11000	0.4	14	67	1.4	7500	38	27	1200	19000	69	3800	210	0.75	840	6.0	39	31	76
3rd quartile	13000	0.4	24	90	2.2	11000	46	43	2000	24000	110	4400	230	1.60	1300	11.0	44	34	120
95th percentile	15000	1.0	45	120	3.4	21550	60	79	3300	33000	220	7910	270	2.40	2455	16.0	52	38	180
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.80	3649	49.0	71	51	250
Mean	11124	0.5	18	73	1.6	9599	40	33	1433	20507	87	4250	207	1.14	1022	7.6	38	31	92
CV (std. dev./mean)	19%	54%	69%	38%	63%	84%	28%	63%	72%	31%	79%	48%	20%	56%	69%	80%	26%	16%	53%
Skewness	0.5	3.5	1.3	1.2	0.7	5.3	1.4	1.1	1.3	1.1	2.0	3.2	0.7	1.7	1.1	2.3	0.0	-0.1	0.9
5 to 10 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	6900	0.4	2.5	28	0.4	2100	20	5	26	8100	7	1700	84	0.75	40	0.5	11	20	18
10th percentile	9000	0.4	6	43	0.4	3700	27	9	200	14000	13	2500	160	0.75	170	1.0	23	26	32
1st quartile	10000	0.4	11	55	0.4	4400	31	14	440	16000	34	2900	180	0.75	370	2.0	30	29	45
Median	12000	0.4	17	76	0.4	6100	37	21	700	19000	54	3400	210	0.75	610	4.0	37	33	66
3rd quartile	15000	0.8	29	100	1.1	7900	45	31	1100	23000	99	3900	250	0.75	950	5.0	45	37	90
95th percentile	19000	1.6	50	140	2.0	12000	56	46	1700	28800	190	5580	318	1.58	1780	8.0	55	42	148
Maximum	25000	4.9	101	290	3.7	37000	90	70	2800	41000	330	12000	350	2.00	3100	14.0	90	46	210
Mean	12578	0.6	22	84	0.8	6750	39	23	785	19981	73	3583	217	0.81	726	3.9	37	33	72
CV (std. dev./mean)	25%	82%	77%	48%	68%	54%	26%	53%	61%	25%	80%	33%	23%	28%	71%	63%	31%	17%	51%
Skewness	0.7	3.6	1.7	1.8	1.5	3.1	0.9	0.9	0.9	0.8	1.5	2.9	0.4	3.9	1.3	1.1	0.6	0.1	1.0
10 to 20 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	5400	0.4	2.5	17	0.4	1700	15	5	25	9400	6	2000	110	0.75	37	0.5	11	19	16
10th percentile	8650	0.4	7	48	0.4	3400	26	9	170	14000	13	2450	150	0.75	195	0.5	24	26	30
1st quartile	10000	0.4	11	60	0.4	4200	30	13	310	16000	29	2800	180	0.75	320	2.0	29	29	41
Median	12000	0.4	19	83	0.4	5500	36	19	560	19000	61	3300	210	0.75	545	3.0	37	33	59
3rd quartile	15000	1.1	32	120	0.9	6900	44	26	820	22000	120	3900	260	0.75	770	4.0	46	37	89
95th percentile	18000	1.9	56	168	1.3	9950	51	37	1300	27000	240	5500	320	1.58	1200	6.0	59	43	150
Maximum	23000	5.8	99	720	1.9	14000	85	46	2000	59000	610	8800	560	2.80	1900	11	95	54	310
Mean	12403	0.8	24	94	0.6	5784	37	20	596	19529	87	3487	222	0.83	588	2.8	38	33	72
CV (std. dev./mean)	26%	85%	70%	58%	55%	39%	25%	45%	60%	26%	97%	29%	27%	37%	58%	61%	32%	17%	63%
Skewness	0.5	3.0	1.3	5.6	1.4	1.1	0.5	0.6	0.8	2.3	2.2	1.7	1.0	4.1	0.9	1.0	0.8	0.2	2.1

All results are in µg/g dry weight.

At 10 - 20 cm, the same eleven elements were still considerably elevated compared to Coniston, the Sudbury Core, and the Outer and Inner Sudbury Communities and differences in concentrations were observed from the minimum value to the 25th percentile with the exception of cadmium. The difference between cadmium in Copper Cliff and the other communities was not observed until the 75th percentile.

At surface, the concentrations of copper, selenium and barium were higher in Copper Cliff than in Falconbridge while the concentrations of cobalt, arsenic and cadmium were higher in Falconbridge than in Copper Cliff. Depending on the element, the differences began from the minimum value to 25th percentile. At this depth, nickel, lead, iron, chromium and zinc concentrations were similar in

both communities. At 10 - 20 cm, however, concentrations of copper, lead, selenium, barium and zinc were higher in Copper Cliff than in Falconbridge starting from the minimum value to the 25th percentile. Concentrations of cobalt, arsenic, cadmium, iron and chromium were higher in Falconbridge than in Copper Cliff from the 25th percentile for arsenic and between the 75th percentile and maximum value for the other elements. At this depth, only nickel concentrations remained similar between Copper Cliff and Falconbridge. As discussed in Section 7.1.5, baseball diamonds in Falconbridge had high concentrations of iron and chromium that were atypical when compared to other sample locations in Falconbridge.

The major land use in Copper Cliff was residential, with only one school property present and a small number of park properties. As a result, the sample sizes for the school and park properties were very small and may affect the validity of comparisons between land uses.

At surface, the concentrations of nickel, copper, cobalt, arsenic and cadmium were similar between the residential properties and park properties. Concentrations of iron and chromium were also similar, however, the residential maximum concentrations were higher. Concentrations of lead, selenium and zinc were higher in the residential properties than in the park properties from the 10th

Table 7.1.6.2: Summary Statistics for Metals and Arsenic in All 0-5 cm Urban Soil Samples from Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 266															
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	11000	10	2000	110	0.7	71	0.5	16	17	23
10th percentile	8700	0.4	6.5	45	0.4	4450	29	13	395	14000	30	2600	160	0.8	320	2.0	23	25	44
1st quartile	9600	0.4	10	53	0.9	5700	33	18	690	16000	43	3200	180	0.8	530	4.0	31	28	56
Median	11000	0.4	15	68	1.4	7550	38	29	1200	19000	70	3800	210	0.8	885	6.0	39	31	80
3rd quartile	13000	0.4	23	91	2.2	11000	46	42	2000	23000	120	4400	230	1.6	1300	11	44	34	130
95th percentile	15000	1.0	44	128	3.4	21000	60	75	3075	32750	220	8000	270	2.4	2375	16	52	38	188
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.8	3200	49	71	51	250
Mean	11227	0.5	18	74	1.6	9629	40	33	1440	20515	91	4282	208	1.2	1017	7.8	38	31	95
CV (std. dev./mean)	19%	54%	67%	38%	61%	85%	28%	60%	69%	31%	77%	49%	20%	55%	65%	78%	26%	15%	51%
Skewness	0.5	3.6	1.3	1.2	0.7	5.5	1.5	1.1	1.3	1.1	2.0	3.1	0.8	1.6	1.0	2.4	0.0	0.1	0.9
Schools 0 to 5 cm				n = 6															
Minimum	7400	0.4	6	32	0.4	7000	20	11	250	13000	11	4100	98	0.8	250	1.0	20	16	26
Median	9550	0.4	26	79	2.6	11500	31	50	1800	24500	71	4750	180	0.8	1600	6.0	40	28	44
Maximum	11000	0.4	37	110	3.1	27000	54	80	2900	34000	100	5500	250	1.6	2500	12	60	33	110
Mean	9500	0.4	22	70	2.0	14167	35	47	1587	23167	60	4750	178	0.9	1452	5.7	41	25	60
CV (std. dev./mean)	15%	0%	60%	43%	63%	57%	39%	66%	70%	38%	69%	10%	33%	39%	70%	75%	39%	29%	66%
Skewness	-0.3		-0.5	-0.3	-0.8	0.9	0.6	-0.2	-0.3	-0.2	-0.4	0.3	-0.2	2.4	-0.3	0.3	0.1	-0.6	0.8
Parks 0 to 5 cm				n = 18															
Minimum	7300	0.4	2.5	34	0.4	2700	25	9	250	13000	13	2400	150	0.75	205	1.0	17	24	24
10th percentile	7960	0.4	6.0	38	0.4	4140	28	11	314	13000	16	2610	177	0.75	254	1.0	30	25	29
1st quartile	9100	0.4	7.0	40	0.4	4300	29	12	350	13000	17	3000	180	0.75	300	1.5	35	27	30
Median	9950	0.4	8.0	56	0.4	6050	37	17	610	17500	25	3600	195	0.75	455	2.5	39	30	43
3rd quartile	11000	0.4	14	70	1.4	8900	43	22	990	25000	37	4000	240	0.75	620	6.0	43	34	55
95th percentile	13000	1.0	55	81	3.7	18600	56	94	4260	31350	122	4625	265	2.4	3017	21	47	36	142
Maximum	13000	1.1	63	90	4.0	22000	64	100	4600	39000	130	5900	290	3.4	3649	22	49	36	150
Mean	10150	0.5	16	57	1.2	7622	38	32	1274	19500	45	3611	207	0.98	959	5.4	39	31	56
CV (std. dev./mean)	18%	48%	110%	29%	105	67%	27%	101	115%	39%	95%	24%	18%	71%	116%	121	20%	14%	69%
Skewness	0.2	2.0	2.1	0.3	1.4	1.9	0.9	1.5	1.5	1.2	1.4	0.8	0.7	3.1	1.6	1.9	-1.2	-0.1	1.6

All results are in µg/g dry weight.

percentile and onwards. Concentrations of nickel, copper, arsenic and selenium were higher in both the residential and park properties compared to the school property. Lead, iron, chromium and zinc concentrations were higher in the residential properties compared to the school property. Concentrations of these elements were similar between the school and park land uses. Cadmium and cobalt concentration were similar between all land uses. Refer to Table 7.1.6.2.

Generally, at 5 - 10 and 10 - 20 cm all elements were higher in the residential properties compared to the school and park properties. The differences in concentrations between residential and park properties started from the 10th percentile to the 70th percentile and onwards, dependant on the element and depth. The sample size for the school property was extremely small and therefore only general comparisons were made for this land use below surface. For arsenic, 5 - 10 cm concentrations at the school property were similar to the concentrations present in the residential properties. This was likely attributed to the small sample size present for the school properties. Additionally, the park properties were higher than the residential properties at the 95th percentile for arsenic at this depth. The residential properties, however, were higher from the 10th percentile to 90th percentile on and maximum values were similar between land uses. The small sample size present for the park properties may have exaggerated the differences between land uses.

Generally, park concentrations for nickel and copper were higher in Copper Cliff compared to Falconbridge, while concentrations of cobalt, arsenic and lead were similar to marginally lower compared to Falconbridge, at surface. With depth, park concentrations were higher in Falconbridge for all 5 elements. Generally, school concentrations for nickel, copper, cobalt and arsenic were higher in Copper Cliff compared to all other communities, at all depths.

There were substantially more exceedences of Table A and F in Copper Cliff than in the Sudbury Core or Coniston. Table 7.1.6.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria in Copper Cliff. Nickel, copper, cobalt, arsenic, lead and selenium concentrations exceeded Table A at all depths. No other elements exceeded Table A at any depth in Copper Cliff. In total, twelve elements exceeded Table F criteria in Copper Cliff and are listed in Table 7.1.6.3. At 0 - 5 cm, 97% of the urban soil samples exceeded Table A and 99 to 100% exceeded Table F for nickel and copper. Generally, the number of exceedences of Table F and A were constant or decreased slightly for nickel and copper with depth. For cobalt and selenium, the number of exceedances of Table A decreased rapidly while Table F exceedances decreased gradually with depth. The number of Table F and A exceedances for arsenic and lead increased with depth. The number of antimony Table F exceedances increased with depth, while Table F exceedances of cadmium, chromium and molybdenum decreased with depth. Table F exceedances for barium and zinc remained relatively constant with depth.

Table 7.1.6.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in Urban Soil Samples in Copper Cliff of the City of Greater Sudbury.

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	14 (5%)	41 (14%)	73 (26%)	0	0	0
Arsenic	123 (42%)	141 (49%)	151 (53%)	90 (31%)	123 (43%)	138 (48%)
Barium	0	6 (2%)	4 (1%)	0	0	0
Cadmium	188 (65%)	85 (30%)	37 (13%)	0	0	0
Chromium	4 (1%)	2 (1%)	1	0	0	0
Cobalt	190 (66%)	134 (47%)	113 (40%)	81 (28%)	33 (12%)	5 (2%)
Copper	288 (99%)	281 (98%)	281 (98%)	280 (97%)	253 (88%)	242 (85%)
Lead	58 (20%)	49 (17%)	65 (23%)	19 (7%)	10 (3%)	24 (8%)
Molybdenum	9 (3%)	0	1	0	0	0
Nickel	290 (100%)	285 (100%)	284 (99%)	280 (97%)	265 (93%)	266 (93%)
Selenium	266 (92%)	243 (85%)	226 (79%)	73 (25%)	5 (2%)	1
Zinc	26 (9%)	7 (2%)	14 (5%)	0	0	0
No. of Samples	290	286	286	290	286	286

High concentrations of nickel and copper were present uniformly throughout the 0 - 5 cm interval in Copper Cliff, although some of the highest concentrations were present immediately adjacent to the INCO smokestacks. Nickel and copper concentrations generally decreased towards the southern end of the community. Concentrations of these elements decreased with depth but remained elevated, with the spatial pattern at 10 - 20 cm similar to the surface. Figures 7.1.6.1 and 7.1.6.2 depict the copper concentrations at the surface and depth in Copper Cliff.

At 0-5 cm, cobalt, arsenic, cadmium, selenium and iron concentrations were elevated throughout the community and decreased gradually towards the south. High concentrations of selenium were present in the surface soil adjacent to the INCO smokestacks. Concentrations of cobalt, cadmium and selenium decreased with depth and maintained a similar spatial pattern to the surface. Iron concentrations remained constant and increased with depth at some sample locations. At 10 - 20 cm, the highest concentrations of iron were present in the southern portion of the community. Slag material was present at some of the properties with high iron concentrations. As shown in Figures 7.1.6.3 and 7.1.6.4, arsenic concentrations increased with depth and were uniformly elevated throughout the community.

High lead concentrations were randomly present throughout the community at surface. At depth, however, lead concentrations generally increased and high concentrations were clustered in the southern portion of the community. Lead concentrations were generally not elevated adjacent to the INCO smokestacks. Slag material was present at some properties with high lead concentrations.

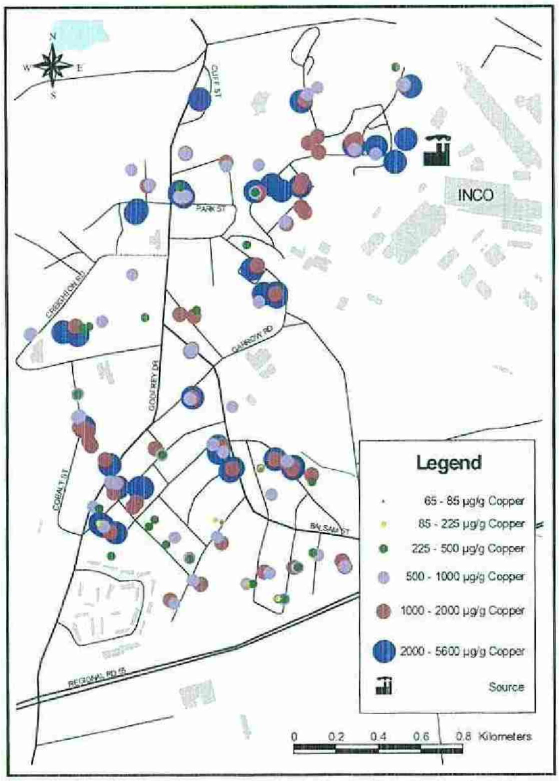

Figure 7.1.6.1: Cu concentrations in urban 0 - 5 cm soil in Copper Cliff

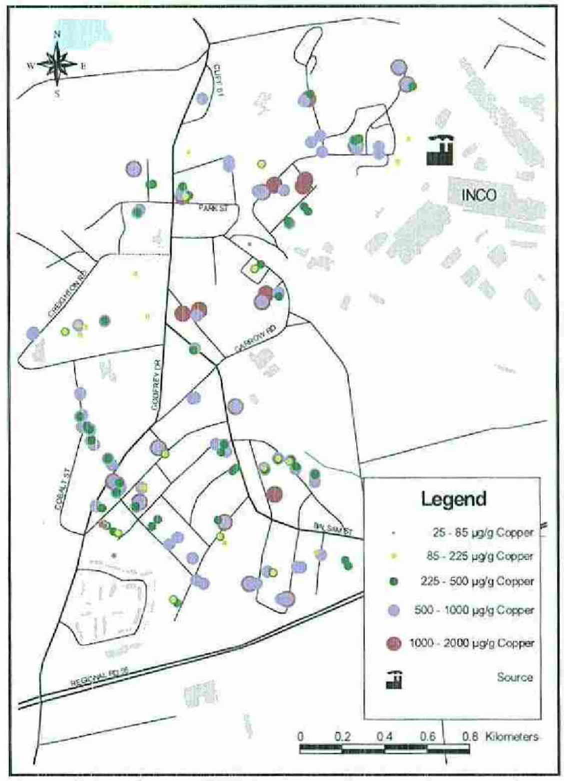

Figure 7.1.6.2: Cu concentrations in urban 10 - 20 cm soil in Copper Cliff

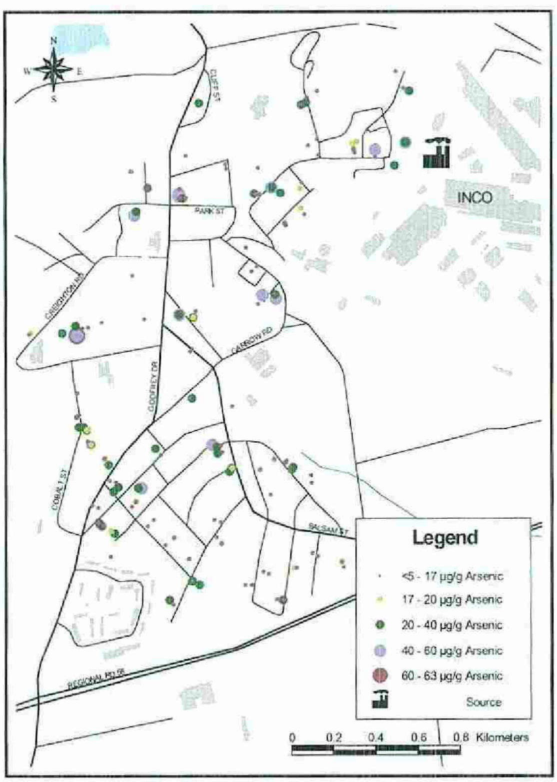

Figure 7.1.6.3: As concentrations in urban 0 - 5 cm soil in Copper Cliff

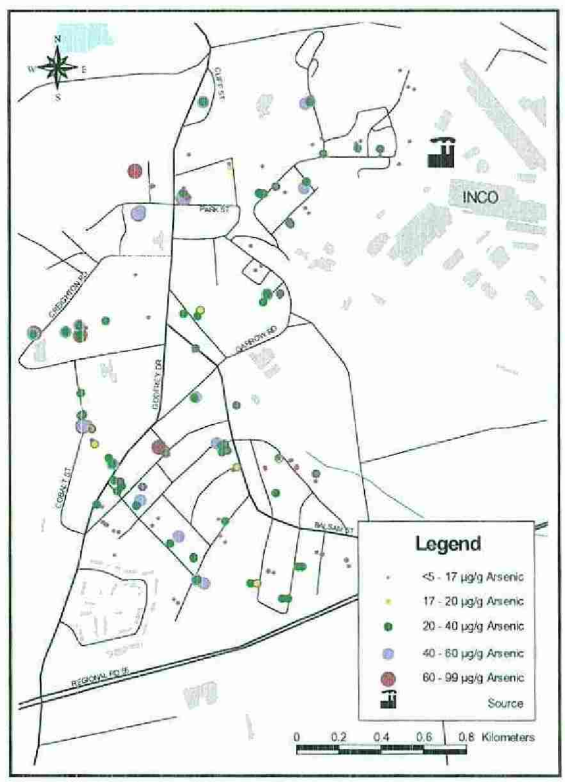

Figure 7.1.6.4: As concentrations in urban 10 - 20 cm soil in Copper Cliff

Chromium and zinc concentrations were rarely elevated above Table F background criteria in Copper Cliff. Elevated zinc concentrations were present in the southern portion of the community at surface, however, concentrations decreased and appeared to be randomly distributed at depth. No pattern of chromium concentrations was noted at surface or at depth in Copper Cliff. Refer to Section 10.2.1 for concentration dot maps of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, zinc, chromium and iron at 0 - 5 and 10 - 20 cm in Copper Cliff.

As discussed previously, the data was sorted by nickel concentrations to differentiate between the Group A, B and C trends. The assumption with this procedure was that the other elements shared similar proportions of the sample locations exhibiting each depth trend as nickel. This assumption appeared to be accurate for the majority of the elements in Copper Cliff. Selenium, however, had substantially different proportions of sample locations exhibiting each depth trend as compared to nickel. As a result, the selenium was sorted separately to differentiate between depth trends for this element.

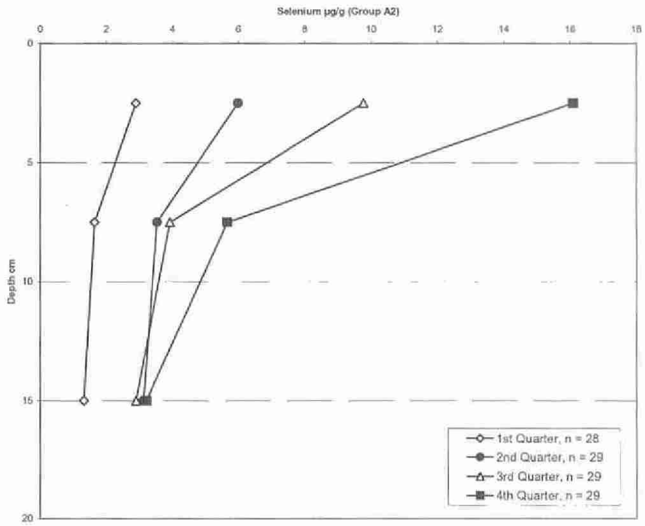

Figure 7.1.6.5: Copper Cliff, Se depth profiles, Group A.

In Copper Cliff, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Nickel, copper, cobalt, cadmium, and to a lesser extent lead and zinc concentrations in 62% of the sample locations, showed a strong visual trend of decreasing concentration with depth in all quarters (Group A). Average concentrations at surface for copper and cadmium were 1.7 to 5.8 times the average concentrations at 10 - 20 cm for all quarters. The average concentrations in the first quarter for cadmium, however, were at or below the analytical MDL. Average concentrations at surface for nickel and cobalt were 1.4 to 3.7 times the average concentrations at 10 - 20 cm for all quarters. For lead and zinc, average concentrations were 1.4 to 2.1 times greater at surface than at 10 - 20 cm for the second through fourth quarters. In 80% of the sample locations, selenium exhibited a strong visual trend of decreasing concentrations with increasing depth in all quarters (Group A). Average selenium concentrations at surface were 1.9 to 5.0 times the average concentrations at 10 - 20 cm for all quarters. Figure 7.1.6.5 depicts the Group A depth profile for selenium in Copper Cliff.

In 62% of the sample locations, iron and chromium showed a strong visual trend of aerial deposition in the third and fourth quarters. No observable change in concentration with depth was noted in the second quarter for iron and in the first and second quarters for chromium. A weak trend of increasing concentration with depth, consistent with Group C (1.2 times), was noted in the first quarter for iron. Average concentrations of these elements at surface were 1.1 to 1.6 times the average concentrations at 10 - 20 cm in the third and fourth quarters.

Average arsenic, aluminum and vanadium concentrations, in 62% of the sample locations, showed no observable change with depth or showed a trend of increasing concentration with depth (1.1 to 1.3 times). This trend was consistent with Group B or C, rather than Group A. A weak visual

Group A trend (1.3 times) was observed for arsenic in the fourth quarter. The multiple depth trends present for aluminum and vanadium was likely an artifact of the sorting process. Aluminum and vanadium tended to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore were not expected to show similar depth trends to nickel. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.6 for graphs of the depth profiles for the elements discussed above.

In Copper Cliff, nickel, copper, cobalt, arsenic and iron concentrations, in 15% of the sample locations and selenium concentrations in 13% of the sample locations, showed a strong visual trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. All elements showed this trend in both halves. Average concentrations at 5 - 10 cm were 1.1 to 1.7 times the average concentrations at surface for these elements, for all quarters. Figure 7.1.6.6 depicts the Group B depth profile for selenium in Copper Cliff.

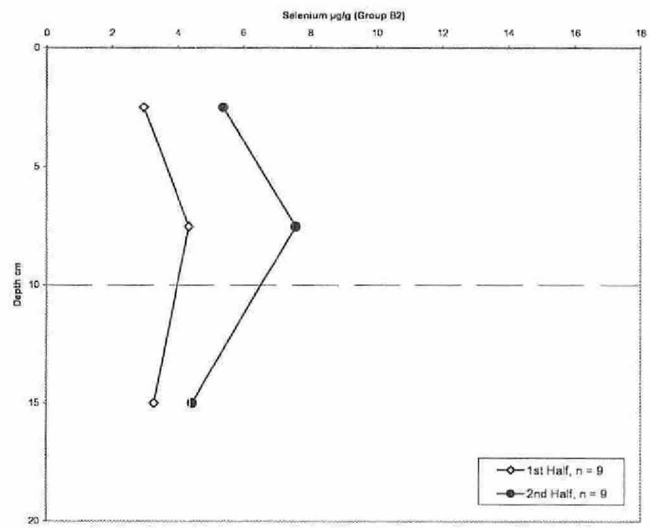

Figure 7.1.6.6: Copper Cliff, Se depth profiles, Group B.

In 15% of the sample locations, aluminum showed a strong visual Group B trend in the second half (1.2 times) and a weak Group B trend in the first half (1.1 times). Cadmium showed weak Group B trends in both halves (1.1 times) while chromium and vanadium showed no observable changes in the first half and a weak Group B trend in the second half (1.1 times). The average concentrations in the first half for cadmium were near the analytical MDL. Lead showed a strong Group B trend in the first half (1.2 times) and a weak Group C trend in the second half (1.1 times). Zinc showed a weak Group B trend in the first half (1.1 times) and a strong Group A trend in the second half (1.3 times). Refer to Section 10.5.6 for graphs of the depth profiles for the elements discussed above.

In Copper Cliff, nickel and arsenic concentrations in 22% of the sample locations showed a strong visual trend of increasing concentration with increasing depth (1.6 to 2.9 times) consistent with Group C. This trend was present in all thirds for these elements. Selenium concentrations in 8% of the sample locations showed a strong Group C trend. Average concentrations at depth were 2.1 times greater than those at surface for selenium. Cobalt, lead and zinc showed strong to weak trends of increasing concentration with depth (1.1 to 2.6 times) in all thirds. Copper, iron and aluminum also showed a strong Group C trend in the second and last third (1.2 to 1.5 times). Both copper and lead also showed weak Group A trends (1.3 times) from surface to 5 - 10 cm in the first third. No observable change or a weak Group C trend (1.2 to 1.3 times) was noted in average concentrations for chromium and vanadium in all thirds. No observable change was noted in average concentrations for cadmium in any third. Both the first and second thirds for cadmium were at or near the analytical MDL.

Figure 7.1.6.7 depicts the Group C depth profile for selenium in Copper Cliff. Refer to Section 10.5 for graphs of the depth profiles for the elements discussed above.

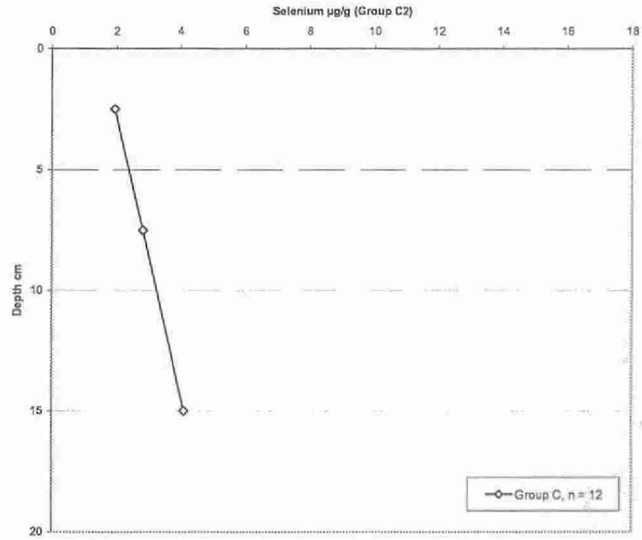

Figure 7.1.6.7: Copper Cliff, Se depth profiles, Group C.

Overall, nickel, copper, cobalt, lead, cadmium, selenium, iron, chromium and zinc exhibited a strong aerial deposition trend from surface. This trend was present in 80% of the sample locations for selenium and 62% of sample locations for the other elements. These sample locations appeared to be unaffected by landscaping practices. The remaining sample locations appeared to be affected to some degree by landscaping practices as nickel, copper, cobalt, arsenic, lead, selenium, iron, zinc and aluminum concentrations showed strong trends of maximum concentrations at 5 - 10 or 10 - 20 cm below surface. These elevated concentrations may still be attributed to aerial deposition, however, over time have been buried by landscaping practices at individual properties. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil.

In Copper Cliff, nine elements including nickel, copper, cobalt, lead, cadmium, selenium, chromium, iron and zinc showed strong indications of aerial deposition. The elements, with the exception of arsenic, were similar to Falconbridge although the trend was stronger in Copper Cliff for certain elements. Additionally, there was strong evidence of aerial deposition for arsenic in Falconbridge although at a limited number of sample locations this evidence was not present for arsenic in Copper Cliff. In Coniston, the Sudbury Core or the Inner Sudbury Communities, evidence of aerial deposition varied in strength, while in Copper Cliff strong evidence was present. Similar to the Inner Sudbury Communities and the Sudbury Core, Copper Cliff had 62% of sample locations that showed an aerial deposition trend for most elements. Selenium showed a strong trend of aerial deposition in 80% of the sample locations. Also similar to the Inner Sudbury Communities and the Sudbury Core, less than half of the sample locations for most elements in Copper Cliff showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm. This is different from Falconbridge and Coniston where over half of the sample locations showed evidence of buried contamination.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Tables 7.1.6.4 to 7.1.6.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths and Tables 10.4.6.1 through 10.4.6.3 for the full results of the analysis. In Tables 7.1.6.4 to 7.1.6.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type. Values that were between 0.70 and 0.75 were considered moderately correlated.

Table 7.1.6.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Copper Cliff

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	0.3	0.6	0.4	0.7	0.3	0.3	0.6	0.3	0.4	0.6	0.3	0.3	0.7	**0.8**	0.3
As	0.3	1	0.7	**0.8**	0.6	**0.9**	**0.8**	**0.8**	**0.8**	0.3	0.2	**0.9**	0.7	0.1	0.4	**0.8**
Ba	0.6	0.7	1	0.7	**0.8**	0.7	0.7	**0.8**	0.7	0.5	0.6	0.7	0.6	0.5	0.6	**0.8**
Cd	0.4	0.7	0.7	1	0.7	**0.9**	**0.9**	**0.8**	**0.8**	0.5	0.3	**0.9**	**0.8**	0.2	0.3	**0.9**
Cr	0.6	0.6	0.7	0.7	1	0.7	0.7	**0.8**	0.6	0.5	0.6	0.7	0.7	0.6	**0.8**	0.7
Co	0.3	**0.8**	0.6	**0.9**	0.7	1	**1.0**	**0.8**	**0.8**	0.5	0.3	**1.0**	**0.9**	0.2	0.4	**0.9**
Cu	0.3	**0.8**	0.5	**0.9**	0.6	**0.9**	1	**0.8**	**0.8**	0.4	0.2	**1.0**	**0.9**	0.2	0.3	**0.8**
Fe	0.6	**0.8**	0.7	**0.8**	**0.8**	**0.9**	**0.8**	1	**0.8**	0.5	0.5	**0.8**	0.7	0.4	0.6	**0.8**
Pb	0.3	0.7	0.7	0.6	0.5	0.7	0.6	0.6	1	0.3	0.3	**0.8**	0.7	0.2	0.4	**0.9**
Mg	0.2	0.1	0.2	0.4	0.2	0.3	0.3	0.3	0.1	1	0.5	0.4	0.4	0.4	0.4	0.5
Mn	0.6	0.3	0.6	0.3	0.5	0.3	0.2	0.4	0.3	0.2	1	0.3	0.2	0.7	0.7	0.4
Ni	0.3	**0.9**	0.6	**0.9**	0.7	**1.0**	**0.9**	**0.9**	0.6	0.3	0.2	1	**0.9**	0.2	0.3	**0.8**
Se	0.3	0.7	0.4	0.7	0.6	**0.8**	**0.8**	0.6	0.5	0.2	0.1	**0.8**	1	0.2	0.4	0.7
Sr	0.7	0.2	0.5	0.3	0.5	0.2	0.2	0.3	0.2	0.2	0.7	0.2	0.2	1	0.7	0.3
V	**0.8**	0.4	0.6	0.3	0.7	0.4	0.3	0.6	0.3	0.1	0.7	0.3	0.3	0.7	1	0.4
Zn	0.4	0.7	**0.8**	**0.8**	0.6	**0.8**	0.7	0.7	**0.8**	0.4	0.4	**0.8**	0.5	0.3	0.4	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.6.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Copper Cliff

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	0.4	**0.8**	0.4	**0.8**	0.5	0.4	**0.8**	0.3	0.7	0.7	0.4	0.3	**0.8**	**0.9**	0.5
As	0.3	1	0.7	0.7	0.6	**0.9**	**0.8**	0.7	0.7	0.2	0.4	**0.9**	0.6	0.3	0.4	**0.8**
Ba	0.6	0.5	1	0.6	**0.8**	0.7	0.6	**0.9**	0.7	0.6	0.7	0.7	0.5	0.6	0.7	**0.8**
Cd	0.4	0.7	0.5	1	0.6	**0.8**	**0.8**	0.7	0.6	0.3	0.4	**0.8**	0.6	0.3	0.4	**0.8**
Cr	**0.8**	0.5	0.7	0.7	1	0.6	0.5	**0.9**	0.5	0.7	0.7	0.6	0.5	0.7	**0.9**	0.7
Co	0.4	**0.8**	0.6	**0.8**	0.6	1	**0.9**	**0.8**	0.7	0.3	0.4	**1.0**	0.7	0.3	0.4	**0.8**
Cu	0.3	0.7	0.5	**0.8**	0.5	**0.9**	1	0.7	0.7	0.3	0.3	**0.9**	**0.8**	0.2	0.3	**0.8**
Fe	0.7	0.6	0.7	0.6	**0.8**	0.7	0.7	1	0.6	0.6	0.7	0.7	0.5	0.6	**0.8**	**0.8**
Pb	0.2	0.5	0.6	0.5	0.4	0.6	0.6	0.5	1	0.2	0.4	0.6	0.5	0.3	0.3	**0.8**
Mg	0.5	0.0	0.4	0.2	0.5	0.1	0.1	0.5	0.0	1	0.6	0.3	0.2	0.5	0.7	0.4
Mn	0.6	0.3	0.6	0.3	0.7	0.4	0.3	0.6	0.4	0.5	1	0.3	0.2	0.7	**0.8**	0.5
Ni	0.4	**0.8**	0.5	**0.8**	0.6	**1.0**	**0.9**	0.7	0.5	0.1	0.3	1	0.7	0.3	0.3	**0.8**
Se	0.2	0.6	0.4	0.6	0.4	0.7	**0.8**	0.6	0.4	0.1	0.2	0.7	1	0.1	0.3	0.6
Sr	0.7	0.2	0.6	0.3	0.6	0.3	0.2	0.6	0.3	0.4	0.7	0.3	0.1	1	**0.8**	0.4
V	**0.9**	0.3	0.6	0.3	**0.8**	0.4	0.3	**0.8**	0.3	0.5	**0.8**	0.4	0.3	**0.8**	1	0.5
Zn	0.4	0.6	0.7	0.7	0.6	0.7	0.7	0.7	**0.8**	0.1	0.6	0.7	0.5	0.5	0.4	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.6.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Copper Cliff

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.3*	*0.7*	*0.2*	***0.9***	*0.4*	*0.3*	***0.8***	*0.3*	*0.7*	*0.7*	*0.3*	*0.2*	***0.8***	***0.9***	*0.4*
As	0.2	1	*0.6*	*0.5*	*0.4*	***0.8***	*0.7*	*0.5*	*0.6*	*0.1*	*0.4*	*0.7*	*0.5*	*0.3*	*0.2*	*0.7*
Ba	0.5	0.4	1	*0.4*	***0.8***	*0.7*	*0.6*	***0.8***	*0.7*	*0.6*	***0.8***	*0.6*	*0.4*	*0.7*	*0.7*	***0.8***
Cd	0.2	0.4	0.4	1	*0.4*	*0.7*	*0.7*	*0.5*	*0.5*	*0.2*	*0.3*	*0.7*	*0.5*	*0.3*	*0.2*	*0.6*
Cr	**0.8**	0.3	0.6	0.3	1	*0.6*	*0.5*	***0.8***	*0.4*	***0.8***	***0.8***	*0.5*	*0.4*	***0.8***	***0.9***	*0.6*
Co	0.4	0.7	0.5	0.7	0.6	1	***0.9***	*0.7*	*0.7*	*0.3*	*0.5*	***0.9***	*0.7*	*0.4*	*0.4*	***0.8***
Cu	0.3	0.5	0.4	**0.8**	0.5	**0.9**	1	*0.6*	*0.7*	*0.2*	*0.4*	***0.9***	*0.7*	*0.3*	*0.3*	***0.8***
Fe	0.6	0.4	0.5	0.4	**0.8**	0.6	0.6	1	*0.6*	*0.7*	*0.7*	*0.6*	*0.4*	*0.7*	***0.8***	*0.7*
Pb	0.2	0.6	0.6	0.5	0.3	0.6	0.5	0.4	1	*0.2*	*0.5*	*0.6*	*0.5*	*0.4*	*0.3*	***0.8***
Mg	0.7	0.0	0.4	0.1	0.7	0.2	0.1	0.5	0.1	1	*0.7*	*0.1*	*0.1*	*0.6*	***0.8***	*0.3*
Mn	0.6	0.4	0.7	0.3	0.7	0.5	0.3	0.6	0.5	0.6	1	*0.4*	*0.2*	***0.8***	***0.8***	*0.6*
Ni	0.3	0.6	0.4	0.7	0.4	**0.9**	**0.9**	0.5	0.5	0.1	0.3	1	*0.7*	*0.3*	*0.3*	***0.8***
Se	0.2	0.4	0.3	0.6	0.4	0.7	0.7	0.4	0.4	0.0	0.1	0.6	1	*0.2*	*0.2*	*0.5*
Sr	0.7	0.3	0.6	0.4	0.7	0.4	0.3	0.5	0.3	0.6	**0.8**	0.3	0.2	1	***0.8***	*0.5*
V	**0.8**	0.2	0.5	0.2	**0.9**	0.4	0.3	0.7	0.2	0.7	0.7	0.3	0.2	**0.8**	1	*0.4*
Zn	0.3	0.6	0.7	0.7	0.4	0.7	0.6	0.5	**0.8**	0.2	0.6	0.6	0.4	0.4	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Generally, in Copper Cliff at 0 - 5 cm nickel, copper, cobalt, arsenic, cadmium, selenium, iron and zinc strongly or moderately correlated with each other using Pearson's and Spearman's. Using Spearman's, lead also strongly correlated with the above referenced elements while using Pearson's lead only strongly correlated with zinc. Barium and chromium are also strongly or moderately correlated with a number of these elements at this depth using Pearson's and Spearman's.

With depth, nickel, copper and cobalt remained strongly correlated with each other using both Pearson's or Spearman's. Cadmium and selenium was strongly or moderately correlated with nickel, copper and cobalt with depth using Pearson's and Spearman's. Cadmium and selenium correlations would likely be stronger if more sensitive laboratory equipment had been used. Arsenic was strongly or moderately correlated with nickel, copper, cobalt and zinc with depth using Spearman's. The number and strength of the arsenic correlations were fewer and weaker using Pearson's and decreased with depth. Lead was strongly correlated with zinc only using both Pearson's and Spearman's with increasing depth. Using Spearman's, lead also moderately correlated with arsenic, barium, copper and cobalt at 5 - 10 cm and only barium, copper and cobalt at 10 - 20 cm. Zinc remained strongly or moderately correlated with nickel, copper, cobalt, arsenic, lead, iron and barium using Spearman's with depth. At 5 - 10 cm, zinc also strongly correlated with cadmium and managanese using Spearman's. With depth, zinc correlations were fewer and weaker using Pearson's. Barium, iron and chromium correlations with elements associated with smelter emissions generally decreased with depth while correlations with naturally occurring elements increased with depth. There were generally more barium, iron and chromium correlations with Spearman's than Pearson's.

Overall, correlations were strong and numerous between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc at surface in Copper Cliff. Generally, the number of correlations between these elements decreased with depth. Correlations of nickel, copper and cobalt, however, remained strong with each other and with arsenic, cadmium, selenium and zinc with depth. This

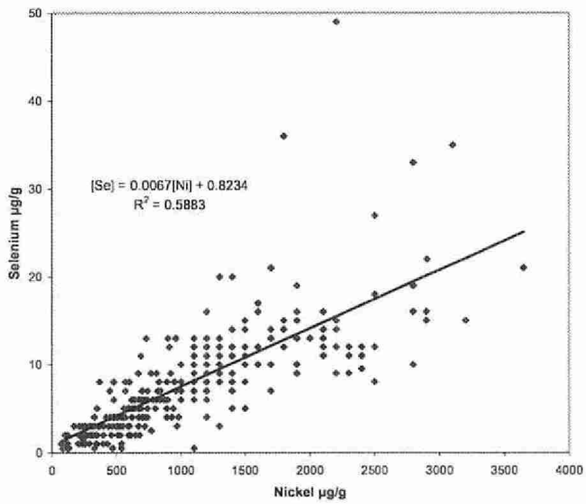

Fig 7.1.6.8: Se vs. Ni, 0 - 5 cm, Copper Cliff

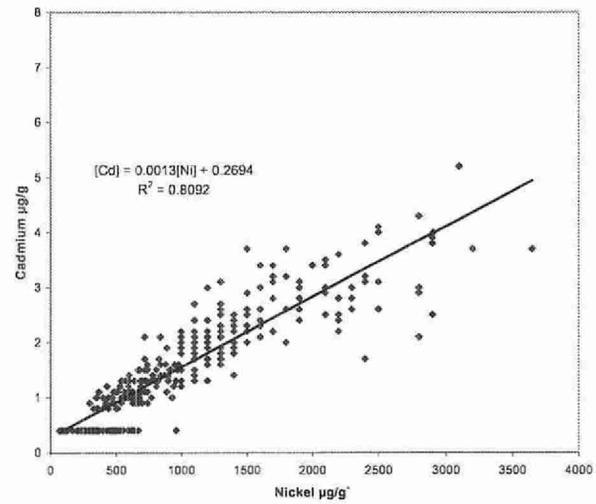

Fig 7.1.6.9: Cd vs. Ni, 0 - 5 cm, Copper Cliff

is an indication that concentrations, at all depths, of these elements in Copper Cliff appear to be attributed to smelter emissions. Figures 7.1.6.8 and 7.1.6.9 show the correlations of nickel and selenium and nickel and cadmium at surface in Copper Cliff.

The correlations of lead, barium, iron and chromium at surface also indicate that these concentrations may be due to smelter emissions. Generally, nickel concentrations were similar to or greater then copper concentrations at all depths throughout the City of Greater Sudbury. As a result, the ratio of nickel to copper remained relatively constant, ranging between 0.7 to 0.9 copper to nickel. The only exception was at the surface in Copper Cliff where concentrations of copper were approximately 1.4 times the concentrations of nickel (ratio of 1.4 copper to nickel).

For the naturally occurring elements, the overall number of correlations increased with depth. Aluminum, strontium and vanadium were correlated with each other at all depths using both Pearson's and Spearman's. With depth, aluminum, strontium and vanadium developed strong or moderate correlations with barium, chromium, iron, magnesium, and manganese, using both Pearson's and Spearman's. These correlations tended to be more numerous and stronger using Spearman's than Pearson's. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury. The increase in the number and strength of these correlations are representative of less disturbed soil at depth. Similar to the Sudbury Core and Coniston, only aluminum and vanadium were strongly correlated at all depths.

Refer to Section 10.4.6 for a complete list of graphs showing selected element correlations at all three depths for Copper Cliff.

In summary, the element concentrations, at all depth intervals in Copper Cliff, were considerably higher and had more exceedences of MOE criteria than in Coniston, the Sudbury Core, and the Outer and Inner Sudbury Communities. Generally, the concentrations of copper, lead, selenium, zinc and barium were higher in Copper Cliff than in Falconbridge while the concentrations of cobalt, arsenic, cadmium, iron and chromium were higher in Falconbridge. Only nickel concentrations generally remained similar between Copper Cliff and Falconbridge. The differences, however, between Copper Cliff and Falconbridge varied with depth.

In Copper Cliff, nickel, copper, cobalt, arsenic, lead and selenium concentrations exceeded Table A at all depths. No other elements exceeded Table A at any depth in Copper Cliff. In total, twelve elements exceeded Table F criteria in Copper Cliff. Generally, the number of exceedences of Table F and A were constant or decreased slightly for nickel and copper with depth. For cobalt and selenium, the number of exceedances of Table A decreased rapidly while Table F exceedances decreased gradually with depth. The number of Table F and A exceedances for arsenic and lead increased with depth.

High concentrations of nickel and copper, cobalt, arsenic, cadmium, selenium and iron, at surface were present uniformly throughout Copper Cliff, although some of the highest nickel, copper and selenium concentrations were present immediately adjacent to the INCO smokestacks. Concentrations of these elements generally decreased towards the southern end of the community. Nickel and copper concentrations remained elevated with depth while concentrations of cobalt, cadmium and selenium decreased. Iron concentrations generally remained constant with depth, however, at some sample locations slag material was present and iron concentrations increased with depth. Arsenic concentrations increased with depth and no gradient was observable as concentrations were elevated and uniform throughout the community. High lead concentrations were randomly present throughout the community at surface, however, concentrations generally increased with depth and high concentrations were clustered in the southern portion of the community. Slag material was also present at some of the properties with high lead concentrations. Elevated zinc concentrations were present in the southern portion of the community at surface, however, concentrations decreased and appeared to be randomly distributed at depth. No pattern of chromium concentrations was noted at surface or at depth in Copper Cliff.

In Copper Cliff, nine elements including nickel, copper, cobalt, lead, cadmium, selenium, chromium, iron and zinc showed strong indications of aerial deposition. The elements, with the exception of arsenic, were similar to Falconbridge, although the trend was stronger in Copper Cliff with over 60% of sample locations showing this trend. Selenium, however, showed this trend in 80% of the sample locations. In less than half of the sample locations most elements also showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm.

The differing depth trends appeared to be the result of landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. The differences between elements in the percentage of sample locations showing these trends may be the result of numerous factors including: element form, element mobility, smelter process changes and differing chemical composition of the ore over time.

Overall, correlations were strong and numerous between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc at surface in Copper Cliff. Generally, the number of correlations between these elements decreased with depth. Correlations of nickel, copper and cobalt, however, remained strong with each other and with arsenic, cadmium, selenium and zinc with depth. This is an indication that concentrations of these elements in Copper Cliff, at all depths, appear to be attributed to smelter emissions. The correlations of lead, barium, iron and chromium at surface, also indicate that these concentrations may be due to smelter emissions. Concentrations of copper were approximately 1.4 times the concentrations of nickel in Copper Cliff. Generally, nickel concentrations were similar to or greater than copper concentrations at all depths throughout the City of Greater Sudbury.

For the naturally occurring elements, the overall number of correlations increased with depth. Aluminum, strontium and vanadium were correlated with each other at all depths. With depth, aluminum, strontium and vanadium developed strong or moderate correlations with barium, chromium, iron, magnesium, and manganese. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury, with the increased number and strength of these correlations representative of less disturbed soil at depth.

7.2 Sand and Gravel

This section will discuss the analytical results of the sand and gravel sample types that were collected by the Ministry in the City of Greater Sudbury in 2001. The sand and gravel sample types were collected in addition to the soil sample type as these materials were observed extensively throughout the City of Greater Sudbury in the school and park land uses. Sand and gravel, unlike grass covered urban soil, can come into direct contact with skin, thereby increasing the risk of exposure. Sand samples were generally collected in 0 - 15 cm intervals while gravel samples were generally collected at surface only.

The sand sample type was subdivided into Play Sand and Beach Sand while the gravel sample type was subdivided into Crushed Stone and Playground Gravel. Play Sand, Crushed Stone and Playground Gravel generally originated off-property and were brought in for landscaping purposes while Beach Sand was naturally occurring. The sand and gravel results were discussed based on sample type (i.e. Play Sand, Beach Sand, Playground Gravel and Crushed Stone) across the City of Greater Sudbury rather than community groupings. Concentrations were compared between the different types of sand and gravel and the 0 - 5 cm soil results for all parks, schools and daycares. These soil results were used for comparison as they represent the soil adjacent to the sand and gravel sample locations. Descriptive statistics, exceedences of applicable Ministry guidelines, spatial distribution of chemical concentrations and statistical correlations between elements were discussed.

For sand, pH analysis was completed on 45 samples and pH ranged from 4.95 to 8.1. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No sand samples analyzed had a pH value that exceeded 9.0, however one sand sample had a pH value below 5.0. This sample had a pH value of 4.95 and was located at one school in the Outer Sudbury Communities. The pH values for all other sand samples analyzed were within the range of 5.0 to 9.0. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

For gravel, pH analysis was completed on 18 samples and pH ranged from 4.7 to 7.9. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No gravel samples analyzed had a pH value that exceeded 9.0, however one gravel sample had a pH value below 5.0. This sample had a pH value of 4.7 and was located at one school in the Inner Sudbury Communities. The pH values for all other gravel samples analyzed were within the range of 5.0 to 9.0. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

7.2.1 Play Sand

There were 550 Play Sand samples collected from 324 sampling locations. Sixty five percent of the samples were from parks and the remainder were from schools and daycares. Thirty four percent of the samples were from the Outer Sudbury Communities, 42% were from the Inner Sudbury Communities, 16% were from the Sudbury Core and the remainder were from Coniston, Copper Cliff and Falconbridge.

The concentrations of nickel, copper, cobalt, arsenic, selenium and lead in the Play Sand samples were relatively low and were generally lower than the 0 - 5 cm soil samples collected from the same

schools, daycares and parks. The concentrations of antimony, beryllium, chromium, iron, magnesium, manganese, molybdenum, strontium, vanadium and zinc in the play sand were similar to 0 - 5 cm soil from the schools and parks. Aluminum, barium and calcium were slightly lower in the play sand than the soil but this would be expected when comparing sand versus soil that ranges from sands to silty clays. Cadmium and selenium in the play sand were lower at the 95th percentile and the maximum values than the soil, but all the results were near the method detection limits.

The large differences between the play sand and soil results occurred with nickel, copper and cobalt, and to a lesser extent arsenic. The concentrations of these elements in the play sand were considerably lower that the concentrations in soil. At the 90th percentile the play sand nickel concentrations were one quarter the concentrations in soil and at the maximum the play sand was one sixth the soil concentrations. From the minimum to the 80th percentile the difference between the play sand concentrations and the soil were not as large. For arsenic the difference occurred only at the 90th, 95th percentile and maximum. Below the 90th percentile arsenic was generally at the detection limit for both sample types.

It was anticipated that the concentrations of nickel, copper, cobalt, arsenic and lead would be lower in the play sand than the surrounding soil as this material had been brought in and would only have accumulated recent aerial deposition of these elements. It should be noted that play sand samples were generally collected at 0 - 15 cm intervals while the soil samples were collected at 0 - 5 cm intervals. Play sand was collected at larger intervals because of the homogeneous nature of the sand and the mixing action that normally occurs in play areas. Due to these factors, the differences in sample volume between sample types should not affect the validity of the comparison.

Abbreviated summary statistics for the Play Sand results were given in Table 7.2.1.1 with the full summary statistics in Section 10.3.3.1. Table 7.2.1.2 gives the summary statistics for 0 - 5 cm soil samples from all of the schools, daycares and parks for comparison purposes.

Table 7.2.1.1: Summary Statistics for Metals and Arsenic in Play Sand in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	2700	0.4	2.5	10	0.4	1500	11	3	6	6200	2	1400	70	0.75	11	0.5	10	7	9
10th percentile	4600	0.4	2.5	17	0.4	2190	22	5	14	11000	2	2700	150	0.75	19	0.5	16	24	16
1st quartile	5300	0.4	2.5	20	0.4	2500	25	6	18	13000	3	3000	160	0.75	22	0.5	18	27	18
Median	6350	0.4	2.5	24	0.4	2900	28	8	26	15000	4	3700	180	0.75	27	0.5	23	32	23
3rd quartile	7700	0.4	2.5	31	0.4	3400	33	9	38	17000	6	4200	220	0.75	35	0.5	27	36	28
95th percentile	10000	0.4	6.0	43	0.4	4400	46	11	58	23000	8	5345	290	0.75	58	1.0	37	51	38
Maximum	13000	2.3	34	67	0.8	12000	59	22	210	27000	82	7200	370	4.10	680	2.0	47	62	110
Mean	6613	0.4	3.1	26	0.4	3003	30	8	32	15380	5	3693	194	0.77	36	0.5	23	33	24
CV (std. dev./mean)	26%	28%	86%	34%	4%	30%	26%	31%	78%	24%	91%	24%	24%	24%	123%	29%	29%	27%	37%
Skewness	0.7	12.7	7.9	1.2	23.5	3.5	1.1	1.4	3.7	0.6	10.0	0.7	1.0	13.4	8.8	4.8	0.8	0.8	2.8

All results are in µg/g dry weight. n = 550

Table 7.2.1.2: Summary Statistics for 0 to 5 cm Soil from All Parks, Schools, and Daycares in the City of Greater Sudbury

	Al	Sb	As	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	3900	0.4	2.5	0.3	0.4	1600	17	3	8	7400	1	1200	90	0.8	16	0.5	10	8	11
10th percentile	7100	0.4	2.5	0.3	0.4	2900	23	4	25	11000	7	2000	140	0.8	36	0.5	23	24	20
1st quartile	8300	0.4	2.5	0.3	0.4	3500	25	5	35	12000	10	2300	160	0.8	48	0.5	29	26	24
Median	9500	0.4	2.5	0.3	0.4	4800	29	7	52	13000	13	3000	200	0.8	69	0.5	35	28	30
3rd quartile	11000	0.4	6.0	0.3	0.4	6800	35	10	93	15000	20	3800	240	0.8	120	0.5	42	32	38
95th percentile	14000	0.4	14	0.3	0.8	11000	45	18	300	21000	51	5800	310	0.8	320	2.0	51	37	61
Maximum	27000	4.4	84	0.5	4.2	33000	73	130	4600	45000	200	13000	650	3.4	3649	22	170	78	150
Mean	9744	0.4	5.2	0.3	0.5	5661	31	9	118	14337	19	3299	206	0.8	134	0.8	36	29	33
CV (std. dev./mean)	25%	55%	138%	6%	79%	58%	26%	110%	284%	27%	112%	42%	32%	22%	217%	175%	31%	19%	47%
Skewness	1.5	10.2	5.9	16.6	6.8	2.9	1.5	6.7	9.1	2.8	4.1	2.0	2.1	9.6	7.6	11.0	2.7	1.8	2.9

All results are in µg/g dry weight. n = 833

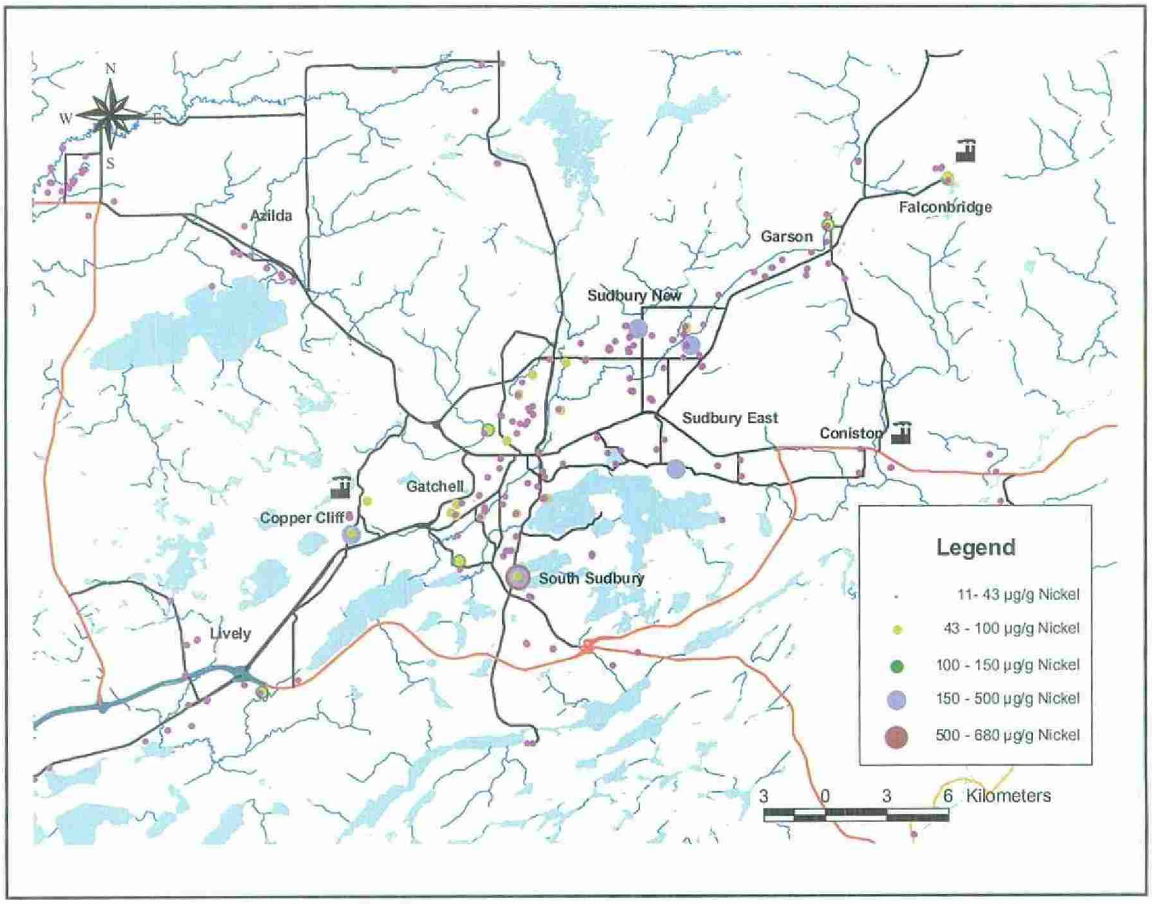

Figure 7.2.1.1: Nickel concentrations in play sand

There were only a few exceedences of the Ministry Table A guidelines in the Play Sand. There were nine exceedences of the nickel Table A value of 150 µg/g and one exceedence of the arsenic Table A value of 20 µg/g. Most of the Table F exceedences occurred for nickel and copper with 68 and 12 respectively. Arsenic exceeded Table F four times. Refer to Table 7.2.2.2 for a full listing of the Table A and F exceedences in Play Sand and Beach Sand. As was expected, two thirds of the Table F exceedences for nickel occurred in Copper Cliff , Falconbridge and the Sudbury Core. There were no Table F exceedences for nickel in Coniston but there has not been an active smelter there since the early 1970's. Most of the rest of the exceedences were in the Inner Sudbury Communities. There were four locations in the Inner Sudbury Communities with high nickel concentrations in Play Sand. In all four locations the nickel in the sand is as high or higher than the surrounding soil. The concentration of copper in these play sand locations was much lower than would normally be expected. There was no relationship between these locations and the three smelter communities. Refer to Figure 7.2.1.1 for a concentration dot map of nickel in Play Sand.

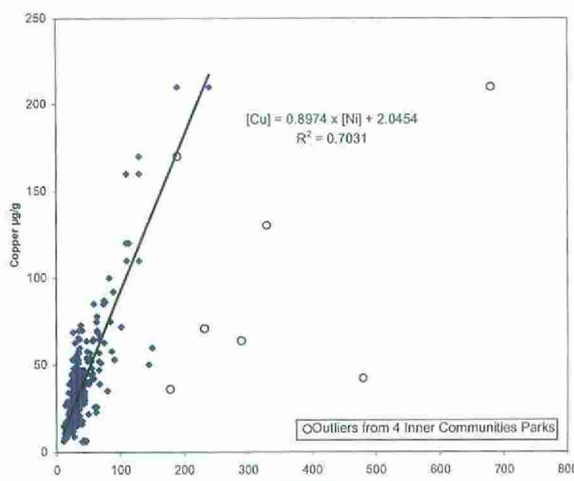

Fig. 7.2.1.2: Cu vs Ni, 0-5 cm, Play Sand

Nickel and copper were the only two elements related with smelter emissions that were strongly correlated with each other. The correlation was only moderate due to a number of high nickel outliers from the four locations mentioned above. The correlation was improved with the removal of these outliers from the data set. Refer to Figure 7.2.1.2 for the copper to nickel correlation in which the outliers were removed. All other strong correlations were related to the naturally occurring elements of aluminum, iron, magnesium and vanadium, refer to Section 10.4.7.

7.2.2 Beach Sand

There were only 42 beach sand samples from 22 beaches sampled in the City of Greater Sudbury. Fifteen of the beaches were located on Ramsey Lake with the rest scattered throughout the city. None of them were in the smelter communities of Coniston, Copper Cliff or Falconbridge.

While the maximum concentrations of nickel, copper, cobalt, arsenic and lead were higher in the play sand than the beach sand, generally the concentrations in the beach sand were similar to the play sand results up to the 95th percentile. Nickel and lead were marginally higher in the beach sand while copper, cobalt and arsenic were the same. Due to the small sample size and the concentration of the beach sites in one area more detailed comparisons will not be made. Refer to Table 7.2.2.1 for the abbreviated summary statistics and Section 10.3.3.1 for the detailed summary.

Table 7.2.2.1: Summary Statistics for Metals and Arsenic in Beach Sand in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	14	0.4	1300	18	4	7	1000	3	2200	140	0.75	14	0.5	10	18	10
10th percentile	4920	0.4	2.5	17	0.4	2210	23	7	21	1200	4	2720	170	0.75	29	0.5	17	23	16
1st quartile	5200	0.4	2.5	19	0.4	2600	24	8	23	1300	4	3100	180	0.75	32	0.5	19	28	18
Median	6050	0.4	2.5	24	0.4	3000	30	9	29	1500	5	3550	190	0.75	38	0.5	24	31	23
3rd quartile	7300	0.4	2.5	27	0.4	3600	32	9	36	1700	6	4000	210	0.75	63	0.5	29	34	26
95th percentile	8980	0.4	2.5	35	0.4	4255	35	9	31	1800	6	4185	250	0.75	40	1.0	38	40	29
Maximum	1200	2.2	10	74	0.4	4600	39	12	130	1900	21	4500	250	0.75	170	1.0	39	40	39
Mean	6674	0.4	3.1	27	0.4	3093	29	9	36	1504	6	3517	197	0.75	49	0.6	25	31	23
CV (std. dev./mean)	28%	63%	54%	51%	0%	23%	17%	21%	69%	16%	64%	17%	14%	0%	58%	31%	29%	16%	29%
Skewness	1.3	6.5	2.7	2.3		0.0	0.1	-1.0	2.4	-0.2	2.4	-0.4	0.3		2.1	2.1	0.2	-0.4	0.4

All results are in µg/g dry weight. n = 42

As shown in Table 7.2.2.2, there was only one exceedence of Table A and that was for nickel. There were eighteen nickel, two copper and one antimony exceedences of Table F in the beach sand. Proportionally this was similar to the play sand samples.

Table 7.2.2.2: Summary of MOE Table F and Table A Exceedences for Sand Samples in the City of Greater Sudbury

Element	Play Sand		Beach Sand	
	Table F	Table A	Table F	Table A
Antimony	3 (1%)	0	1 (2%)	0
Arsenic	4 (1%)	1	0	0
Cadmium	0	0	0	0
Chromium	0	0	0	0
Cobalt	2	0	0	0
Copper	16 (3%)	0	2 (5%)	0
Lead	0	0	0	0
Molybdenum	1	0	0	0
Nickel	68 (12%)	9 (2%)	18 (43%)	1 (2%)
Selenium	2	0	0	0
Vanadium	0	0	0	0
Zinc	0	0	0	0
No. of Samples	550		42	

There was a strong correlation of nickel to copper in the beach sand, refer to Figure 7.2.2.1. There was also a moderate correlation with nickel and copper to lead in the beach sand. All other strong correlations were related to the naturally occurring elements of aluminum, iron, magnesium and vanadium. Refer to Section 10.4.8.

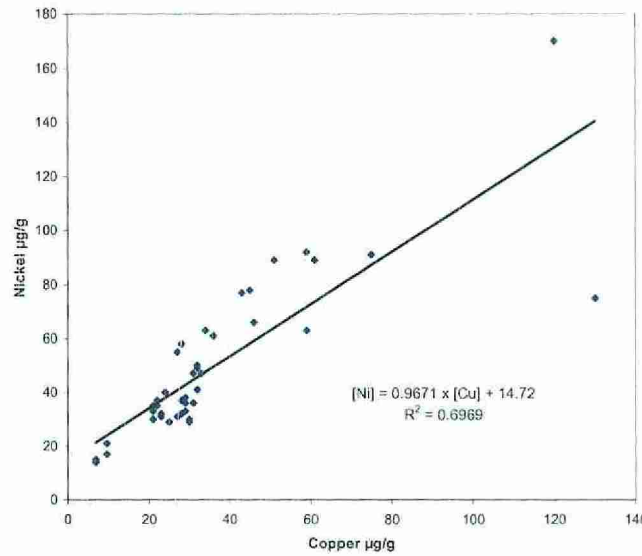

Figure 7.2.2.1: Cu vs Ni in Beach Sand

7.2.3 Playground Gravel

There were 107 playground gravel samples collected from 54 sampling locations. Ninety four percent of the samples were from schools and the remainder were from parks. Thirty two percent of the samples were from the Outer Sudbury Communities, 40% were from the Inner Sudbury Communities, 24% were from the Sudbury Core and the remaining 4% were from Coniston. Abbreviated summary statistics for the playground gravel results are given in Table 7.2.3.1 with the full summary statistics in Section 10.3.3.2.

Table 7.2.3.1: Summary Statistics for Metals and Arsenic in Playground Gravel in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	10	11	10
10th percentile	5800	0.4	2.5	25	0.4	2700	22	5	17	11000	4	3200	160	0.75	25	0.5	20	23	17
1st quartile	6600	0.4	2.5	28	0.4	3400	25	6	26	13000	6	3800	170	0.75	34	0.5	26	26	22
Median	7800	0.4	2.5	34	0.4	4400	29	9	45	15000	8	4800	200	0.75	55	0.5	34	29	29
3rd quartile	9200	0.4	5.0	43	0.4	11000	34	12	83	18000	12	6100	230	0.75	93	0.5	69	33	37
95th percentile	12000	0.4	8.0	68	0.4	69000	43	22	197	23000	20	15000	280	1.97	190	1.0	240	42	58
Maximum	26000	1.5	17	200	1.0	250000	90	33	670	43000	32	26000	510	4.30	370	2.0	340	73	200
Mean	8171	0.4	3.7	39	0.4	14363	30	10	67	15688	10	6005	204	0.87	75	0.6	63	30	32
CV (std. dev./mean)	31%	33%	68%	52%	11%	231%	27%	55%	102	28%	54%	67%	24%	51%	82%	36%	106	27%	59%
Skewness	2.9	5.8	2.7	4.7	12.1	4.9	2.9	1.8	3.7	2.0	1.4	2.8	2.1	4.2	2.2	4.4	2.3	2.0	4.5

All results are in µg/g dry weight. n = 265

The concentration ranges of aluminum, chromium, iron, magnesium, manganese, vanadium and zinc in the playground gravel were similar to the concentration ranges found in the 0 - 5 cm parks, schools and daycare soil samples. Arsenic showed a similar pattern except for the maximum value in the soil being higher than the playground gravel. The concentrations ranges of barium, cadmium, selenium and strontium for the playground gravel were all lower. Most were below the detection limit for cadmium and selenium. Cobalt concentrations in the playground gravel were approximately two times higher than the soil from the minimum to the 95th percentile with the soil being higher above the 95th percentile. Nickel and copper concentrations in the playground gravel were slightly higher from the minimum to the median with the soil being slightly higher from the 75th percentile to the maximum concentrations. Generally, unlike the play and beach sand, there was little difference between the playground gravel and the park, school and daycare surface soil samples.

As with the play and beach sand the majority of the Table A and F exceedences occurred with nickel and copper, refer to Table 7.2.4.2. There were also a substantial number of cobalt Table F exceedences. There were 16 nickel and 3 copper Table A exceedences, and 93 nickel, 41 copper and

13 cobalt Table F exceedences out of 107 samples. There were no arsenic exceedences. The number of exceedences for playground gravel were higher than the play and beach sand and similar to the school soil samples.

The nickel and copper Table A and F exceedences in playground gravel were concentrated in the Sudbury Core, New and East Sudbury, and Coniston. Refer to Figure 7.2.3.1 for the nickel concentration dot map.

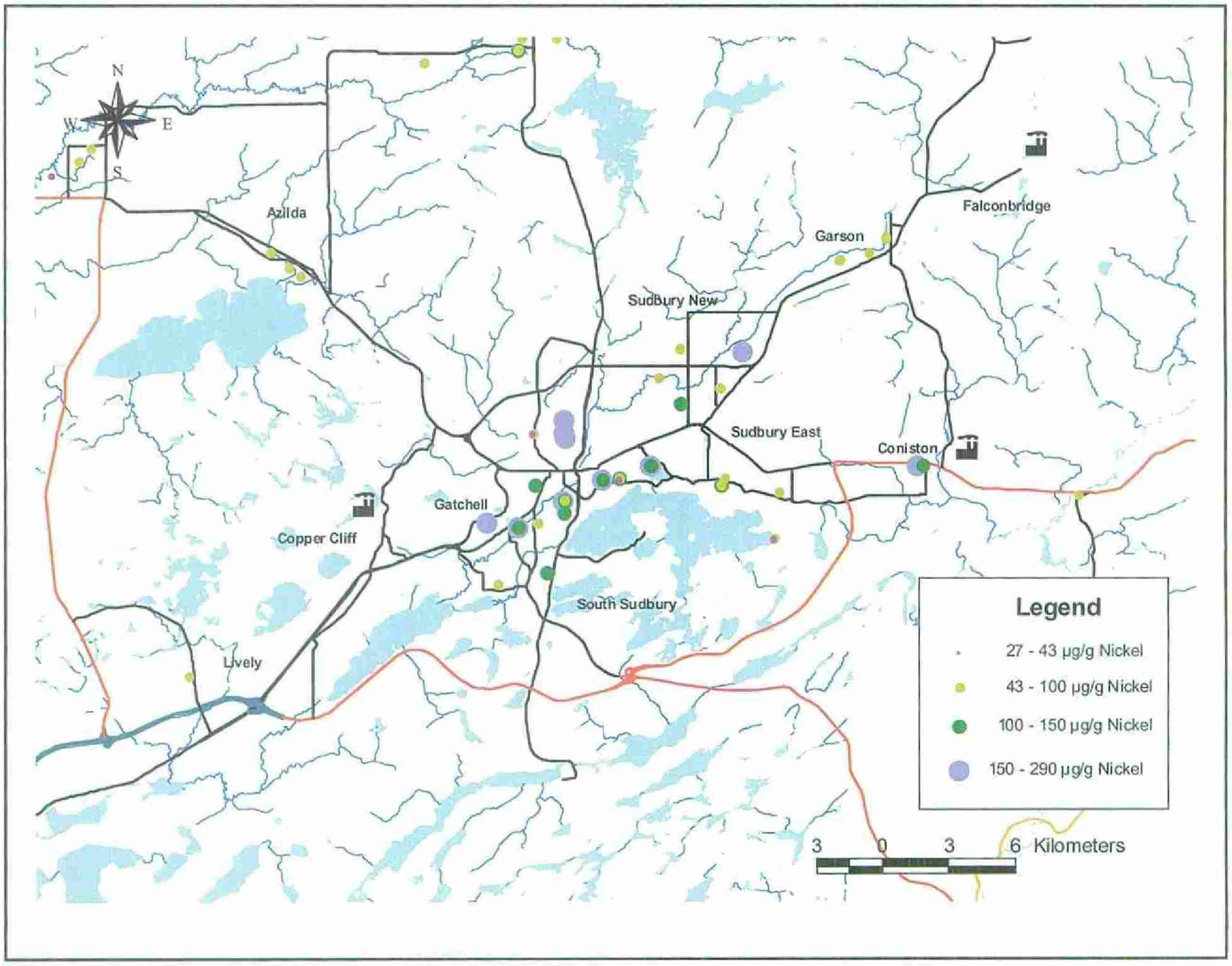

Figure 7.2.3.1: Nickel concentrations in playground gravel

As with the play sand, nickel and copper in playground gravel were the only two elements associated with smelter emissions that were strongly correlated with each other. All other strong correlations were related to the naturally occurring elements of aluminum, barium, chromium, iron, magnesium, manganese and vanadium. Refer to Section 10.4.10.

7.2.4 Crushed Stone

There were 158 ballfield crushed stone samples collected from 83 sampling locations. Seventy three percent of the samples were from parks and the remainder were from schools. Thirty one percent of the samples were from the Outer Sudbury Communities, 47% were from the Inner Sudbury Communities, 18% were from the Sudbury Core and the remaining 4% were from Coniston and Copper Cliff. Abbreviated summary statistics for the ballfield crushed stone results are given in Table 7.2.4.1 with the full summary statistics in Section 10.3.3.2.

Table 7.2.4.1: Summary Statistics for Metals and Arsenic in Baseball Infield Crushed Stone in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	15	11	10
10th percentile	5770	0.4	2.5	25	0.4	3270	21	5	15	10000	4	3100	150	0.75	23	0.5	26	20	15
1st quartile	6800	0.4	2.5	29	0.4	4600	24	5	20	12000	5	3700	160	0.75	28	0.5	37	24	19
Median	8000	0.4	2.5	36	0.4	8700	27	6	28	13500	6	5400	190	0.75	38	0.5	56	27	25
3rd quartile	9400	0.4	2.5	47	0.4	15000	30	9	51	15000	9	7500	220	0.75	64	0.5	110	30	30
95th percentile	12000	0.4	8.0	68	0.4	131450	36	11	101	19000	13	18150	270	2.11	140	1.0	270	36	34
Maximum	26000	1.5	17	200	1.0	250000	43	20	300	27000	32	26000	510	3.20	370	2.0	340	68	200
Mean	8366	0.4	3.5	42	0.4	21618	28	7	48	13932	8	6861	199	0.92	59	0.6	88	27	28
CV (std. dev./mean)	32%	36%	78%	55%	12%	192%	20%	41%	111%	23%	59%	72%	25%	53%	97%	33%	87%	26%	73%
Skewness	2.9	4.9	3.3	4.4	12.6	3.8	0.6	1.5	3.0	1.1	2.3	2.1	2.6	2.85	3.1	4.4	1.6	2.0	5.6

All results are in µg/g dry weight. n = 157

The concentration ranges of calcium, magnesium and strontium are much higher in the ballfield crushed stone then in the park, school and daycare 0 - 5 cm soil results. This was expected as this crushed stone material is mostly limestone which is high in these elements. Aluminum, barium, iron, manganese, vanadium and zinc concentrations ranges were similar to the parks and school soil concentration ranges. The concentration range for chromium was slightly lower and arsenic, cadmium, cobalt, copper, lead and nickel were considerably lower for the crushed stone compared to the parks and school 0 - 5 cm soil. The difference was not as large as for the play sand but larger than the playground gravel.

There were fewer exceedences of the Ministry Table A and F criteria in the ballfield crushed stone than for the playground gravel. There were 9 nickel and 3 copper Table A exceedences and 63 nickel and 20 copper Table F exceedences out of 158 samples. There were no cobalt or arsenic exceedences. Refer to Table 7.2.4.2.

The largest number of exceedences of nickel and copper in the ballfield crushed stone occurred in Copper Cliff, Coniston and the Sudbury Core. There were still a number of exceedences in Lively, East Sudbury and New Sudbury but the concentrations were lower. Refer to Figure 7.2.4.1 for the concentrations of nickel in ballfield crushed stone.

Table 7.2.4.2: Summary of MOE Table F and Table A Exceedences for Gravel Samples in the City of Greater Sudbury

Element	Playground Gravel		Ballfield Crushed	
	Table F	Table A	Table F	Table A
Antimony	1 (1%)	0	4 (3%)	0
Arsenic	0	0	0	0
Cadmium	0	0	0	0
Chromium	2 (2%)	0	0	0
Cobalt	13 (12%)	0	0	0
Copper	41 (38%)	3 (3%)	20 (13%)	3 (2%)
Lead	0	0	0	0
Molybdenum	1 (1%)	0	3 (2%)	0
Nickel	93 (87%)	16 (15%)	63 (40%)	9 (6%)
Selenium	1 (1%)	0	1 (1%)	0
Vanadium	0	0	0	0
Zinc	0	0	1 (1%)	0
No. of Samples	107		158	

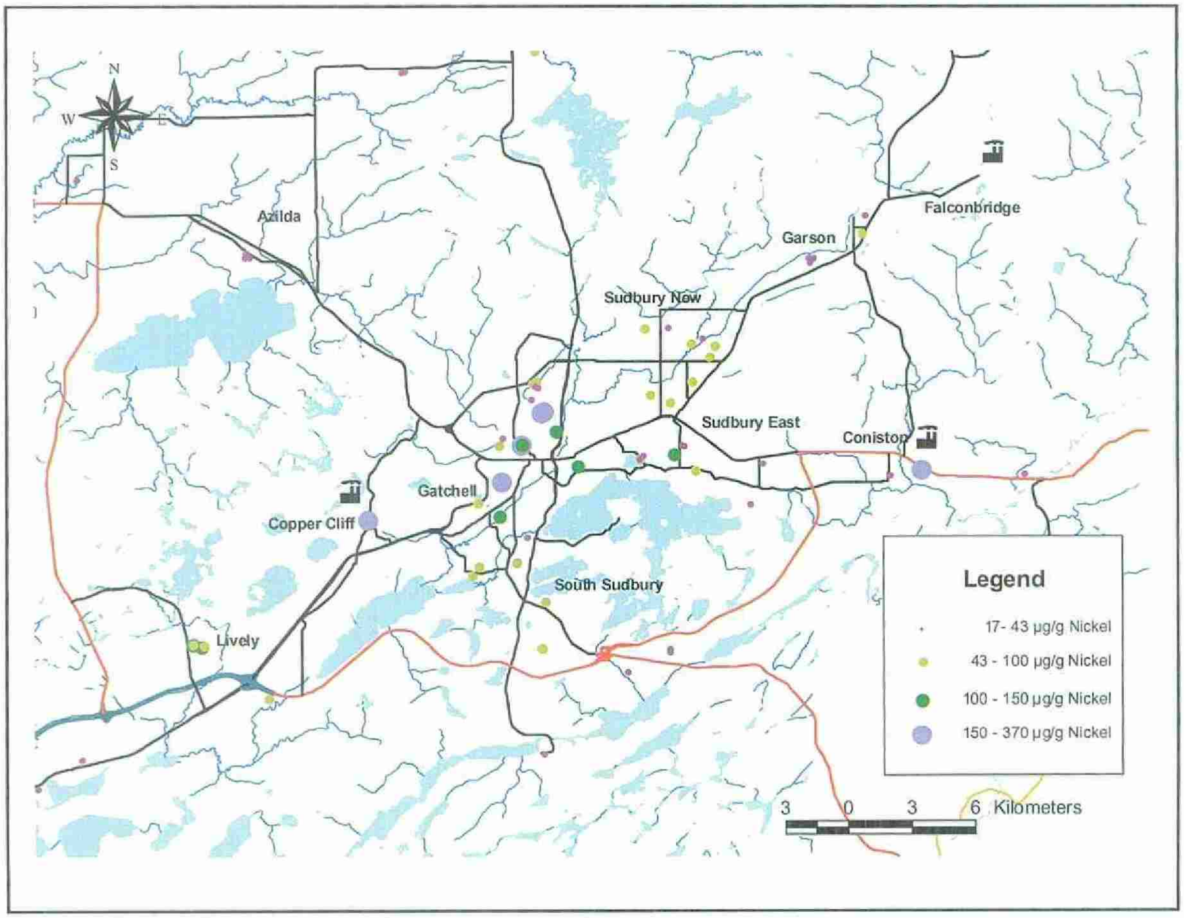

Figure 7.2.4.1: Nickel concentration in crushed stone.

Unlike play sand and playground gravel, nickel, copper, cobalt and lead were strongly correlated with each other in the ballfield crushed stone. Nickel and copper showed the strongest correlation, Refer to Figure 7.2.4.2. Also unlike the play sand and playground gravel there were fewer strong correlations between the naturally occurring elements. The strongest of these correlations were with calcium, magnesium and strontium as would be expected with crushed limestone. Refer to Section 10.4.9.

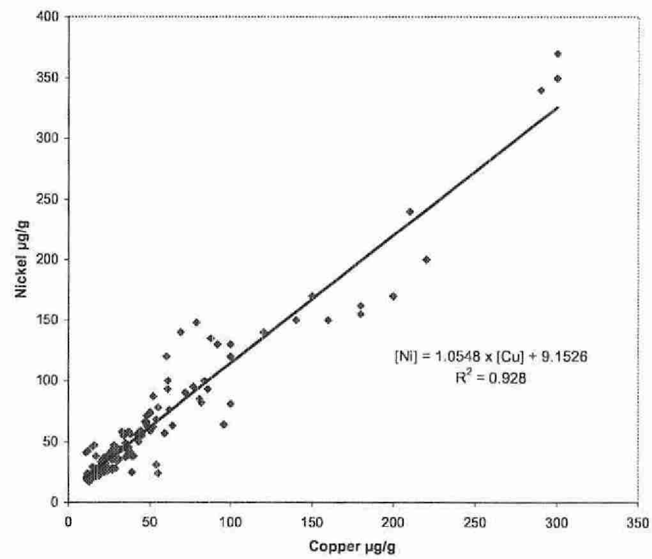

Figure 7.2.4.2: Cu vs Ni in Crushed Stone

7.2.5 Summary

In summary, the concentrations of elements associated with smelter emissions in the play and beach sand are quite low. Nickel and copper were the only elements that were consistently elevated in the sand type samples and occurred in the same ratios that have been observed in soil, see Section 7.2 for soil discussion. While nickel and copper were above Table F in many sand samples there were only a few above Table A criteria and all of the samples were below 1000 µg/g. There were four play sand samples from the park on Parkinson Street in Falconbridge that had substantially elevated arsenic but these were still well below the adjacent soil concentrations.

The playground gravel samples were essentially the same as the park, school and daycare 0 - 5 cm soil samples. They only differed at the high end where the park, school and daycare 0 - 5 cm soil samples were considerably higher than the playground gravel samples. The difference at the high end occurs because there were no gravel playgrounds in either Copper Cliff or Falconbridge where the highest soil levels are found. The ballfield crushed stone samples were in between the play sand and playground gravel concentrations. For play sand, beach sand, playground gravel and ballfield crushed stone the highest concentrations of nickel and copper were found in Copper Cliff, Coniston, Falconbridge and the Sudbury Core with the next highest concentrations in the Inner Sudbury Communities. The Outer Sudbury Communities had the lowest concentrations. The range of concentrations observed in the sand and gravel samples, for the elements associated with smelter emissions, was considerably less than the range of concentrations observed for urban soil.

7.3 Undisturbed Natural Soil

This discussion focuses on the undisturbed natural soil samples collected by the Ministry in the City of Greater Sudbury in 2001. Undisturbed natural soil samples were generally collected from undeveloped, naturally vegetated areas within the City of Greater Sudbury urban area. at up to three depth intervals, 0 - 5 cm, 5 - 10 cm and 10 - 20 cm. Vegetation cover was generally comprised of a naturally occurring mixture of woody shrubs and trees. Undisturbed natural soil samples consisted of all material less than 2 millimetres in diameter and ranged in texture from sand to silty clays.

There were 42 undisturbed natural soil samples collected from seven sampling locations in three parks in the City of Greater Sudbury: Bell Park, Moonlight Beach Park and Lake Laurentian Conservation Area. Bell Park was located in the community grouping of the Sudbury Core while the remaining two parks were located in the community grouping of Inner Sudbury Communities. The concentrations of the undisturbed soil samples were compared to urban soil collected from the Inner Sudbury Communities and the Sudbury Core. Due to the low sample size of the undisturbed natural soil, comparisons with urban soil are limited. Concentrations of the undisturbed natural soil samples were also compared to urban soil collected adjacent to the undisturbed natural soil sampling locations. Sample sizes of these groups of samples were similar.

In the undisturbed surface soil, concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, and to a lesser extent zinc and iron, were substantially higher compared to the Inner Sudbury Communities and varied between higher and marginally higher than the Sudbury Core. Concentrations of nickel, copper, cobalt and arsenic were four to thirteen times higher starting from the minimum to median values compared to the Inner Sudbury Communities, while concentrations of lead, cadmium, and selenium were two to four times higher from the minimum to median values. Concentrations of iron and zinc were only marginally higher from the minimum value onwards.

At 10 - 20 cm, concentrations of zinc were marginally higher in the undisturbed soil from the minimum value with the exception of the maximum value. Concentrations of nickel, copper, arsenic and lead were similar until the 75th to 95th percentile where these elements were lower in the undisturbed soil. Concentrations of cobalt, selenium and iron were similar to the Inner Sudbury Communities. Concentrations of cadmium were below the analytical MDL in the undisturbed natural soil.

Compared to the Sudbury Core, surface concentrations of nickel, copper, cobalt and arsenic were two to four times higher starting from the minimum value, while concentrations of lead, cadmium, selenium and iron were only marginally higher from the minimum to median value, generally excluding the maximum values. At 10 - 20 cm, concentrations of nickel, copper, arsenic and lead were lower starting from the 25th percentile while cobalt, selenium and zinc were similar up until the 95th percentile and or maximum value where these elements were lower by half. Concentrations of iron were similar to the Sudbury Core while concentrations of cadmium were below the analytical MDL. Refer to Table 7.3.1.

Concentrations of nickel, copper, cobalt, arsenic, lead, selenium, cadmium, zinc and iron in the undisturbed natural soil were higher than urban soil samples collected from adjacent sampling locations. Concentrations of nickel, copper, cobalt, arsenic and lead were twice as high from the 25th percentile and up to five times higher from the 95th percentile. All other elements were marginally

higher from the 25th to 75th percentile on. At 10 - 20 cm, concentrations of these nine elements were either similar or lower than concentrations found in adjacent urban soil.

Table 7.3.1: Summary Statistics for Metals and Arsenic in Undisturbed Natural Soil in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Undisturbed Natural Soil, n = 14																			
Minimum	5200	0.4	6.0	67	0.4	1700	19	7	78	14000	8	1100	130	0.75	110	0.5	18	17	31
10th percentile	8160	0.4	7.2	70	0.4	2230	21	13	120	14600	17	1260	140	0.75	157	0.5	26	24	34
1st quartile	9100	0.4	21	71	0.4	2300	25	18	280	16000	30	1500	150	0.75	380	1.0	31	24	36
Median	11000	0.4	25	82	0.9	2850	33	26	545	19000	53	2350	265	0.75	638	1.8	33	31	56
3rd quartile	15000	1.1	41	100	1.4	7400	42	48	940	30000	94	3400	410	0.75	1215	2.0	47	34	64
95th percentile	15350	3.6	59	134	2.7	19200	50	100	1605	46000	147	3935	625	1.29	3249	4.5	50	36	134
Maximum	16000	4.3	60	140	3	27000	51	100	1800	46000	156	4000	690	2.30	3284	5.5	51	36	140
Mean	11407	1.1	29	89	1.1	5943	34	37	660	23286	63	2443	322	0.86	983	1.9	36	29	61
CV (std. dev./mean)	28%	114%	59%	26%	78%	119%	30%	82%	82%	47%	75%	40%	57%	48%	106%	74%	28%	19%	56%
Skewness	-0.2	2.2	0.5	1.2	1.3	2.5	0.3	1.5	1.0	1.4	0.9	0.3	0.9	3.7	1.7	1.5	0.3	-0.8	1.6
5 to 10 cm Undisturbed Natural Soil, n = 14																			
Minimum	6600	0.4	2.5	40	0.4	1200	20	5	41	10000	7	1500	110	0.75	68	0.5	16	20	21
10th percentile	8830	0.4	2.5	45	0.4	1830	24	7	61	13600	8	1690	123	0.75	76	0.5	26	24	31
1st quartile	13000	0.4	2.5	47	0.4	2100	28	8	64	15000	9	1900	160	0.75	81	0.5	28	28	38
Median	14500	0.4	7.0	79	0.4	2450	34	12	85	17000	12	2400	270	0.75	105	1.0	32	34	41
3rd quartile	17000	0.4	12	110	0.4	4400	48	15	240	19000	18	4100	340	0.75	145	1.0	49	40	48
95th percentile	21400	0.8	19	148	1.0	4835	59	27	484	23000	43	5255	504	0.75	588	2.0	56	43	96
Maximum	24000	1.6	23	180	1.0	4900	68	28	510	23000	47	6100	510	0.75	594	2.0	57	46	120
Mean	14750	0.5	8.9	85	0.5	2993	38	13	168	17286	18	3036	269	0.75	191	1.0	36	33	49
CV (std. dev./mean)	32%	66%	72%	49%	46%	41%	36%	53%	94%	21%	77%	47%	50%	0%	98%	52%	35%	23%	51%
Skewness	0.1	3.7	1.0	0.9	1.6	0.4	0.7	1.1	1.4	0.0	1.5	0.8	0.6		1.7	1.0	0.6	-0.2	2
10 to 20 cm Undisturbed Natural Soil, n = 14																			
Minimum	10000	0.4	2.5	46	0.4	1700	28	6	22	14000	5	2300	110	0.75	52	0.5	23	28	24
10th percentile	12300	0.4	2.5	47	0.4	1930	31	7	24	16000	6	2360	130	0.75	52	0.5	25	29	34
1st quartile	14000	0.4	2.5	49	0.4	2100	32	9	28	16000	7	2500	140	0.75	54	0.5	28	31	38
Median	17000	0.4	2.5	62	0.4	2650	40	10	52	18500	8	3150	190	0.75	61	0.5	34	36	43
3rd quartile	20000	0.4	2.5	110	0.4	4100	50	11	68	20000	8	5000	290	0.75	84	1.0	51	41	56
95th percentile	23700	1.1	7.1	134	0.4	4435	58	12	89	21700	10	5715	331	0.75	98	1.0	55	46	68
Maximum	25000	1.4	9.0	140	0.4	4500	61	13	110	23000	12	6300	370	0.75	104	1.0	56	49	71
Mean	17071	0.5	3.5	80	0.4	2993	42	10	52	18357	8	3750	218	0.75	69	0.7	37	36	47
CV (std. dev./mean)	25%	59%	59%	43%	0%	35%	25%	22%	48%	13%	21%	35%	39%	0%	27%	36%	32%	18%	29%
Skewness	0.3	2.6	2.1	0.6		0.3	0.5	-0.3	0.8	0.1	1.1	0.6	0.3		0.8	0.3	0.6	0.5	0.4

All results are in µg/g dry weight.

For undisturbed natural soil, pH analysis was completed on 3 samples and pH ranged from 4.47 to 5.1. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No undisturbed natural soil samples analyzed had a pH value that exceeded 9.0, however two undisturbed natural soil samples had pH values below 5.0. These two 0 - 5 cm samples had pH values of 4.47 and 4.86 and were located in Lake Laurentian Conservation Area and Bell Park, respectively. The third sample, collected at 10 - 20 cm, had a pH value of 5.1 and was located in Moonlight Beach Park. The pH values in all three undisturbed natural soil samples analyzed were lower than the pH values present in adjacent sand and urban soil samples. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

Table 7.3.2 summarizes the number of undisturbed natural soil samples that exceed the Table F and Table A criteria. Nickel, copper and arsenic concentrations exceeded Table A at surface and 5 - 10 cm while cobalt exceeded Table A only at surface. No Table A exceedances for any element were

noted at 10 - 20 cm. No other elements exceeded Table A at any depth. In total, nine elements exceeded Table F criteria and are listed in Table 7.3.2. At 0 - 5 cm, 93% of the undisturbed natural soil samples exceeded Table A and 100% exceeded Table F for nickel. The number of exceedences of Table A decreased substantially with depth while the number of Table F exceedances stayed constant. At 0 - 5 cm, 79% of the undisturbed natural soil samples exceeded Table A and 79 to 90% exceeded Table F for copper and arsenic, respectively. Nickel, copper, cobalt, arsenic, lead, selenium and iron concentrations, at surface, were considerably higher at stations 5030455 and 5030456 located in Bell Park compared to all other undisturbed natural soil sampling locations. Cadmium and zinc concentrations were also higher at station 5030455 in Bell Park compared to all other undisturbed soil sampling locations.

Table 7.3.2: Summary of MOE Table F and Table A Exceedences for Undisturbed Natural Soil Samples

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	4 (29%)	1 (7%)	1 (7%)	0	0	0
Arsenic	11 (79%)	1 (7%)	0	11 (79%)	1 (7%)	0
Cadmium	5 (36%)	0	0	0	0	0
Cobalt	8 (57%)	2 (14%)	0	4 (29%)	0	0
Copper	13 (93%)	7 (50%)	1 (7%)	11 (79%)	4 (29%)	0
Lead	2 (14%)	0	0	0	0	0
Molybdenum	1 (7%)	0	0	0	0	0
Nickel	14 (100%)	14 (100%)	14 (100%)	13 (93%)	3 (21%)	0
Selenium	7 (50%)	2 (14%)	0	0	0	0
No. of Samples	14	14	14	14	14	14

In the undisturbed natural soil, nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron showed a strong visual trend of decreasing concentration with depth, consistent with aerial deposition. Average concentrations at surface for nickel and copper were 12.7 to 14.3 times the average concentrations at 10 - 20 cm. Average concentrations at surface for arsenic and lead were 8.2 to 8.4 times the average concentrations at 10 - 20 cm. For cobalt, selenium, cadmium and iron, average concentrations were 1.3 to 3.8 times greater at surface than at 10 - 20 cm. The average concentrations for selenium and cadmium below surface, however, were at or below the analytical MDL. Figure 7.3.1 depicts the depth profile for nickel in undisturbed natural soil.

Unlike the urban soil samples, trends of maximum concentrations occurring below surface, at either 5 - 10 cm or 10 - 20 cm, were not generally observed for the undisturbed natural soil. This may be the result of minimal disturbance occurring at the undisturbed natural soil sample locations or the small sample size. These sample locations were located in undeveloped, naturally vegetated areas of parks within the City of Greater Sudbury. Disturbance of the

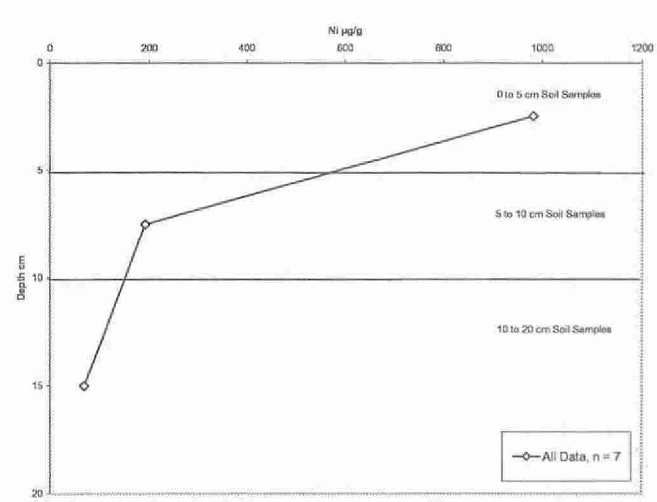

Figure 7.3.1: Undisturbed Natural Soil, Ni depth profiles, All Data

soil at these sample locations by anthropogenic activities, such as landscaping, is unlikely to have occurred. A lack of anthropogenic disturbance may have resulted in metals and arsenic accumulation at surface in the undisturbed natural soil. Additionally, high organic content is often observed at the surface in undeveloped, naturally vegetated soil. Metals and arsenic will often bind with organic content in soil, resulting in accumulation of these elements. Total organic content (TOC) was only analyzed for two surface, undisturbed natural soil samples. The TOC results from these two samples were the highest for undisturbed natural soil, however, the small amount of data available precludes any meaningful interpretation.

Average aluminum, and to a lesser extent chromium and vanadium concentrations, showed a visual trend of increasing concentration with depth (1.2 to 1.5 times). Average zinc concentrations showed no observable change with depth.

Refer to Section 10.5.7 for graphs of the depth profiles for the elements discussed above.

In summary, undisturbed natural soil samples were collected from seven sampling locations in the Inner Sudbury Communities and the Sudbury Core. Generally, surface concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc were higher in the undisturbed natural soil than in urban soil collected from adjacent sampling locations. These elements, with the exception of zinc, were also higher in the undisturbed natural soil compared to urban soil collected throughout both the Inner Sudbury Communities and the Sudbury Core. At depth, concentrations of these elements in undisturbed natural soil were generally similar or lower than concentrations in adjacent urban soil or in urban soil collected throughout the Inner Sudbury Communities and the Sudbury Core. The pH in undisturbed natural soil was lower than the pH in adjacent sand and urban soil samples.

In the undisturbed natural soil samples, nickel, copper and arsenic concentrations exceeded Table A at surface and 5 - 10 cm while cobalt exceeded Table A only at surface. No Table A exceedances for any element were noted at 10 - 20 cm. No other elements exceeded Table A at any depth while nine elements exceeded Table F. A strong trend of aerial deposition from surface was observed in all undisturbed natural soil sampling locations. Unlike in the urban soil samples, trends of maximum concentrations occurring below surface, at either 5 - 10 cm or 10 - 20 cm, were not generally observed for the undisturbed natural soil. This may be the result of minimal disturbance occurring at the undisturbed natural soil sample locations resulting in metals and arsenic accumulation at surface or the small sample size. In the undisturbed natural soil, nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron showed a strong visual trend of decreasing concentration with depth, consistent with aerial deposition. Average concentrations at surface for nickel and copper were 12.7 to 14.3 times the average concentrations at 10 - 20 cm. Average aluminum, and to a lesser extent chromium and vanadium concentrations, showed a trend of increasing concentration with depth (1.2 to 1.5 times). Average zinc concentrations showed no observable change with depth.

7.4 Commercial and Residential Produce

The Ministry and other institutions have collected garden produce and wild berries in the Sudbury area on a number of occasions. In most of these cases the collections were limited to specific areas and did not look at the community as a whole. In the Ministry's case, the two largest studies had been conducted in the community of Gatchell in 1971 and 1993 (MOE 1976 and MOE 1993b). As part of the 2001 soil survey, a preliminary sampling of residential garden vegetables and soil in five local communities and in commercial market gardens, berry farms and wild blueberries across the City of Greater Sudbury was conducted in the month of August for screening purposes only.

There were a number of areas where the 2001 produce sampling program was deficient. First, all of the produce was collected over a very narrow time span. This meant that certain produce, such as strawberries, were well past the normal harvest period and others were not fully developed or ripe. Second, for the residential garden samples, the volume of sample available was very small resulting in only small single samples being collected. Additionally, there was a wide range of vegetables grown in the residential gardens with no one vegetable grown at all locations. Arrangements had not been made in the spring to have the property owners plant sufficient or similar produce to meet the needs of the study. This was not an issue for the market garden vegetables and commercial berries where large duplicate samples were collected. Thirdly, no residential control properties were sampled for comparison purposes. Lastly, the sampling program did not sample enough properties to ensure an adequate representation of residential gardens within the City of Greater Sudbury. For example, Gatchell, which has a large number of residential gardens, only had three properties sampled while the Sudbury Core, Outer and Inner Sudbury Communities had no residential gardens sampled.

In addition to these deficiencies in the sampling program design, there were two laboratory quality control issues with the produce data. These two issues are dealt with in detail in Appendix G (MOE 2003). The first and most serious issue was the contamination of a small number of the samples with nickel, copper and lead during the preparation of the samples. It was determined that a small percentage of the residential produce samples were processed with a small seldomly used grinder that could result in metal particles wearing off the grinder and entering the samples. Although, it was possible to determine which samples were most likely impacted by the use of this grinder, it is possible that some samples were not identified. None of the commercial produce were processed using this equipment and were therefore not affected.

The second laboratory quality control issue dealt with the presence of magnetic particles in the produce samples. Due to the possible presence of metal particles from the small grinder or from staples used to seal the sample containers, all produce samples were examined for magnetic particles. Magnetic particles were found to be present in the produce samples and removed as outlined in Appendix G (MOE 2003). Further analysis showed that while some of the magnetic particles did originate from the small grinder or the staples, the majority of the particles were from environmental sources such as mineral soil and / or resulting from a high temperature furnace. Therefore, the removal of all magnetic particles artificially lowered the concentrations of certain elements in the samples. Refer to Appendix G for further discussion.

The two laboratory quality control issues, in addition to the deficiencies in the sampling program design, resulted in the residential produce data having limited usefulness. The residential produce

data should only be used to indicate whether residential produce was accumulating metals and arsenic. It can not be used to determine the exposure risk for consumption of this produce or produce grown in the City of Greater Sudbury.

For commercial agricultural and urban garden soil, pH analysis was completed on 7 samples and pH ranged from 5.1 to 7.0. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. The pH values for all commercial agricultural and urban garden soil analyzed were within this range. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

7.4.1 Commercial Produce

7.4.1.1 Market Gardens

Nickel was the only element that was elevated above Ministry background criteria in just over half of the market garden soils collected. Nickel concentrations ranged from 27 to 62 μg/g, with a mean of 44 μg/g. The market garden control site had nickel concentrations ranging from 9 to 10 μg/g, with a mean of 9.5 μg/g. No other elements were elevated above background and the remaining elements were comparable to concentrations found at the control sites. Refer to Table 7.4.1.1.1 below for an abbreviated summary of the Market Garden soil results, and Section 10.3.2 and Appendix D for the detailed results.

Table 7.4.1.1.1: Summary Statistics for Metals and Arsenic in 0-15 cm Soil Samples from Market Gardens in the City of Greater Sudbury - 2001..

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	19	0.4	2600	16	3	26	8500	5	1700	100	0.75	27	0.5	13	18	19
10th percentile	6080	0.4	2.5	24	0.4	2690	17	4	28	9430	5	1700	110	0.75	35	0.5	16	20	20
1st quartile	6400	0.4	5.0	27	0.4	3000	19	4	31	10000	7	1800	120	0.75	38	0.5	17	22	22
Median	7750	0.4	6.0	29	0.4	3650	21	4	35	10000	8	1900	125	0.75	44	0.5	19	23	27
3rd quartile	9350	0.4	7.0	32	0.4	3950	23	4	42	11000	10	2100	150	0.75	50	0.5	28	25	30
95th percentile	11000	0.4	9.0	39	0.5	4820	25	5	44	12050	13	2310	201	0.75	59	0.5	34	28	34
Maximum	11000	0.4	9.0	44	1.9	5200	26	5	46	13000	17	2500	220	0.75	62	0.5	36	28	43
Mean	7830	0.4	5.7	29	0.5	3595	21	4	36	10390	9	1960	139	0.75	44	0.5	21	23	27
CV (std. dev./mean)	22%	0%	36%	20%	71%	20%	14%	11%	17%	10%	36%	12%	24%	0%	21%	0%	32%	11%	23%
Skewness	0.4		-0.2	0.6	4.5	0.5	0.0	0.0	0.1	0.7	1.1	0.8	1.4		0.2		0.9	0.1	0.9

There were 20 samples. Concentrations are in μg/g dry wt.

An abbreviated summary of the chemical analysis of the Market Garden produce collected in Sudbury are presented in Table 7.4.1.1.2 and are expressed as μg/g dry weight. Refer to Section 10.3.4 and Appendix D for the detailed results. Neither Provincial, Federal nor International guidelines are available for comparison. However, comparison can be made using the produce collected from the market garden control site located approximately 245 km west of Copper Cliff.

Table 7.4.1.1.2: Summary Statistics for All Market Garden Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5.0	0.2	0.2	0.5	6.0	0.1	220	0.5	0.2	4.0	23	0.5	1100	3.7	0.2	0.5	0.2	0.5	0.5	12
10th percentile	5.0	0.2	0.2	0.6	7.6	0.1	319	0.5	0.2	6.1	36	0.5	1130	8.1	0.2	1.0	0.2	0.8	0.5	14
1st quartile	9.0	0.2	0.2	1.0	13	0.1	1050	0.5	0.2	7.8	58	0.5	1450	9.7	0.2	3.3	0.2	1.2	0.5	19
Median	40	0.2	0.2	4.8	16	0.2	2700	0.5	0.2	9.5	98	0.5	2550	22	0.3	6.0	0.2	6.8	0.5	30
3rd quartile	110	0.2	0.2	14	19	0.4	4650	0.7	0.5	11	185	0.5	3700	56	0.7	15	0.2	12	0.5	33
95th percentile	360	0.2	0.6	40	26	1.8	11000	1.1	1.1	16	378	0.9	6410	176	1.1	43	0.2	30	0.9	48
Maximum	1200	0.2	1.0	92	28	2.3	14000	3.4	1.1	17	1300	3.1	15000	230	2.6	45	0.2	43	2.9	61
Mean	112	0.2	0.3	12	16	0.4	3799	0.7	0.4	9.9	162	0.6	3107	45	0.5	11	0.2	9.0	0.6	28
CV (std. dev./mean)	192%	0%	63%	151%	36%	133%	98%	71%	75%	33%	138%	68%	86%	125%	104%	110%	0%	103%	70%	41%
Skewness	3.9		3.5	2.9	0.0	2.1	1.3	4.6	1.4	0.5	3.9	6.0	3.0	1.8	2.8	1.8		1.9	4.8	0.7

There were 44 samples collected from 6 market vegetable producers. Concentrations are in μg/g dry wt.

Unfortunately, control data is not available for all produce collected such as banana pepper, pumpkin, radish, yellow tomato, potato, and zucchini as these vegetables were not grown at the market garden control site.

The nickel content of vegetables collected from the City of Greater Sudbury was higher than what was determined from vegetables collected from the control sites. The nickel concentration for yellow beans grown in Sudbury ranged from 7.1 to 22 µg/g, with a mean of 14 µg/g, while the yellow bean control had a nickel concentration of 0.7 µg/g. The nickel range in carrots sampled in Sudbury was 3.2 to 43 µg/g, with a mean of 29 µg/g, while the carrot from the control area had a nickel concentration of 0.5 µg/g. Nickel concentration in lettuce ranged from 3.2 to 12 µg/g, for a mean of 8.0 µg/g, while the lettuce control had a nickel concentration of 3.7 µg/g. The nickel concentrations in tomatoes from the Sudbury area ranged from 0.5 to 45 µg/g, for a mean of 16 µg/g, while the tomato sampled in the control area had a nickel concentration of 1.1 µg/g. Nickel and copper content found in the control vegetables are within the international content ranges reported in plant foodstuffs of similar vegetable species from unpolluted regions (Kabata-Pendias 1994). Antimony (Sb), beryllium (Be), and selenium (Se) had values that were (0.2)<W, indicating they were less than the laboratory detection limit.

7.4.1.2 Commercial Berry Farms

Nickel and copper are the only elements that were found to be elevated above provincial background levels in soil at the commercial berry producer sites. Soil copper concentrations at the Sudbury sites ranged from 20 to 72 µg/g, for a mean of 31 µg/g, while the control site had soil copper concentrations of 1.0 to 5.0 µg/g, for a mean of 2.4 µg/g. Nickel concentrations at the Sudbury sites ranged from 29 to 52 µg/g, for a mean of 39 µg/g, while the control sites had nickel concentrations of 6 to 9 µg/g, for a mean of 7.2 µg/g. Refer to Table 7.4.1.2.1 for an abbreviated set of soil results and Section 10.3.2 and Appendix D for detailed results.

Table 7.4.1.2.1: Summary Statistics for Metals and Arsenic 0-15 cm Soil Samples from Commercial Berry Producers in the City of Greater Sudbury -

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5900	0.4	2.5	18	0.4	550	13	3	20	7100	7	790	35	0.75	29	0.5	10	14	11
10th percentile	6320	0.4	2.5	22	0.4	1420	14	3	22	7810	7	957	64	0.75	31	0.5	10	17	14
1st quartile	6650	0.4	2.5	24	0.4	1800	18	3	25	8400	7	1350	78	0.75	33	0.5	10	18	15
Median	7300	0.4	5.0	27	0.4	2100	19	4	29	9100	8	1600	110	0.75	39	0.5	10	19	18
3rd quartile	8200	0.4	7.0	33	0.4	2900	21	4	35	9950	10	1800	130	0.75	42	0.5	11	20	24
95th percentile	1280	0.4	9.5	36	0.4	4595	26	5	51	1570	17	2635	170	0.75	50	1	15	22	33
Maximum	1600	0.4	10	39	0.4	5800	27	5	72	2100	18	2900	180	0.75	52	1	17	23	39
Mean	7903	0.4	5.0	28	0.4	2411	19	4	31	9759	9	1660	106	0.75	39	0.5	11	19	20
CV (std. dev./mean)	28%	0%	49%	20%	0%	46%	19%	18%	36%	30%	35%	32%	35%	0%	17%	27%	17%	10%	34%
Skewness	2.7		0.4	0.1		1.3	0.6	0.3	2.4	3.0	1.8	0.7	0.1		0.5	2.9	2.1	-0.1	1.1

There were 32 samples. Concentrations are in µg/g dry wt.

An abbreviated summary of the chemical analysis of the Commercial Berry produce collected in Sudbury are presented in Table 7.4.1.2.2 and 7.4.1.2.3 and are expressed as µg/g dry weight. Refer to Section 10.3.4 and Appendix D for the detailed results. Currently, there are not any Provincial, Federal nor International human health guidelines available for comparison. However, comparison can be made using the berries collected from commercial berry control sites located approximately 125 and 245 km west of Copper Cliff.

Table 7.4.1.2.2: Summary Statistics for Metals and Arsenic for Commercial Raspberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	930	0.5	0.2	4.1	23	0.5	900	11	0.2	4.6	0.2	0.9	0.5	9
10th percentile	5	0.2	0.2	1.4	6.0	0.1	1050	0.5	0.2	4.5	24	0.5	945	14	0.2	5.2	0.2	1.3	0.5	10
1st quartile	5	0.2	0.2	2.0	6.5	0.1	1250	0.5	0.2	4.6	28	0.5	970	15	0.2	5.7	0.2	1.8	0.5	11
Median	5	0.2	0.2	3.7	7.0	0.1	1500	0.5	0.2	5.1	32	0.5	1050	17	0.4	6.5	0.2	2.2	0.5	13
3rd quartile	6	0.2	0.2	5.7	9.0	0.1	1700	0.5	0.2	5.6	34	0.6	1450	37	0.5	7.7	0.2	2.9	0.5	13
95th percentile	11	0.2	0.2	7.9	11	0.3	1750	0.5	0.2	6.0	47	0.7	1525	65	1.0	9.1	0.2	6.1	0.5	18
Maximum	12	0.2	0.2	8.4	11	0.8	1900	0.5	0.3	6.2	68	1.1	1600	84	1.1	9.6	0.2	9.5	0.5	20
Mean	6	0.2	0.2	4.0	7.8	0.1	1452	0.5	0.2	5.1	33	0.6	1177	27	0.4	6.7	0.2	2.7	0.5	13
CV (std. dev./mean)	38%	0%	0%	61%	25%	122%	20%	0%	12%	11%	31%	27%	21%	79%	63%	22%	0%	75%	0%	21%
Skewness	1.8			0.4	0.6	4.0	-0.5		4.0	0.2	2.7	3.6	0.5	1.7	1.5	0.6		2.7		1.4

16 raspberry samples were collected. Concentrations are in µg/g dry wt.

Table 7.4.1.2.3: Summary Statistics for Metals and Arsenic for Commercial Strawberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	3.9	6	0.1	920	0.5	0.2	2	13	0.5	510	4.6	0.2	1.4	0.2	1	0.5	4
10th percentile	5	0.2	0.2	4.3	6.0	0.1	936	0.5	0.2	2.6	19.3	0.5	561	9.6	0.2	1.5	0.2	1.2	0.5	4.3
1st quartile	5	0.2	0.2	5.7	6.0	0.1	1000	0.5	0.2	2.8	23.0	0.5	630	13.0	0.2	1.5	0.2	1.8	0.5	5.0
Median	5	0.2	0.2	8.7	7.0	0.1	1300	0.5	0.2	3.9	26.0	0.5	850	16.5	0.3	1.9	0.2	2.8	0.5	6.0
3rd quartile	7	0.2	0.2	12.0	8.0	0.1	1700	0.5	0.2	4.5	35.0	0.5	1000	21.0	0.4	2.1	0.2	4.2	0.5	7.0
95th percentile	9	0.2	0.2	13.4	8.4	0.2	1970	0.5	0.3	6.2	97.0	0.5	1070	27.1	0.7	2.2	0.2	4.4	0.5	7.4
Maximum	11	0.2	0.2	14.0	9.0	0.2	2100	0.5	0.4	6.5	160.0	0.5	1200	29.0	0.7	2.2	0.2	4.7	0.5	8.0
Mean	6	0.2	0.2	8.6	7.2	0.1	1336	0.5	0.2	3.9	37.8	0.5	838	16.8	0.3	1.8	0.2	2.8	0.5	6.0
CV (std. dev./mean)	30%	0%	0%	40%	14%	32%	29%	0%	26%	33%	98%	0%	25%	40%	51%	16%	0%	45%	0%	21%
Skewness	1.9			0.1	0.1	2.3	0.8		2.8	0.5	3.2		-0.2	0.2	1.3	-0.1		0.1		-0.3

14 strawberries samples were collected. Concentrations are in µg/g dry wt.

When strawberry and raspberry results are compared to the control site, the nickel content is found to be higher for all samples collected in the Sudbury area in comparison to the control areas. The Sudbury strawberry samples had a nickel concentration range of 1.4 to 2.2 µg/g with a mean of 1.8 µg/g while the strawberry control range was 0.5 to 0.6 µg/g with a mean of 0.6 µg/g.

The range of nickel concentrations for the commercial raspberries was 4.6 to 9.6 µg/g with a mean of 6.7 µg/g, while the raspberry control site nickel range was 0.5 to 1.1 µg/g with a mean of 0.9 µg/g.

No other elements analyzed indicate a similar pattern. Arsenic (As), beryllium (Be), and antimony (Sb) results do not appear in the table as all values were 0.2<W, while all vanadium (V) results were 0.5<W, all of which were less than laboratory detection limits.

7.4.1.3 Wild Blueberries

Arsenic, copper, nickel, and selenium values in soil for both wild blueberry sites exceeded the Table F background guideline and in most cases, were above the Table A criteria. Arsenic concentrations at the Sudbury sites ranged from 33 to 39 µg/g, for a mean of 37 µg/g while the control sites had arsenic concentrations of 5 to 6 µg/g. Copper concentrations at the Sudbury sites ranged from 120 to 400 µg/g, for a mean of 242.5 µg/g, while the control sites had copper concentrations of 14 to 15 µg/g. Nickel concentrations at the Sudbury sites ranged from 77 to 270 µg/g, for a mean of 180 µg/g, while the control sites had nickel concentrations of 19 to 20 µg/g. Other than these 4 elements,

all other elements were comparable to the wild blueberry control site. Refer to Table 7.4.1.3.1 for an abbreviated set of wild blueberry soil results and Section 10.3.2 and Appendix D for the detailed results.

Table 7.4.1.3.1: Summary Statistics for Metals and Arsenic in 0-15 cm Soil Samples from Wild Blueberry Sites in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6400	0.4	33	24	0.4	610	16	6	120	10000	17	1100	110	0.75	77	0.5	10	18	16
Median	9250	0.7	36	39	0.4	905	25	11	225	16500	23	2300	180	0.75	179	2.0	12	31	33
Maximum	13000	1.0	39	51	0.4	1200	33	15	400	25000	32	3600	230	0.75	290	3.0	14	43	49
Mean	9475	0.7	36	38	0.4	905	25	11	243	17000	24	2325	175	0.75	181	1.9	12	31	33
CV (std. dev./mean)	37%	49%	8%	36%	0%	32%	40%	44%	53%	48%	27%	61%	34%	0%	60%	70%	18%	45%	59%

There were 4 samples. Concentrations are in µg/g dry wt.

Abbreviated results for chemical analysis of wild blueberries collected from wild blueberry patches in Sudbury are presented in Table 7.4.1.3.2 and are expressed as µg/g dry weight. Refer to Section 10.3.4 and Appendix D for the complete results. Currently, there are not any Provincial, Federal or International human health-based guidelines available for evaluation of metal content. As a result, the wild blueberries from the Sudbury area were compared against blueberries collected from a remote blueberry patch located approximately 70 km northwest of Copper Cliff where soil contamination was not a concern.

Table 7.4.1.3.2: Summary Statistics for Metals and Arsenic in Wild Blueberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	8	0.2	0.2	4.3	5.0	0.1	640	0.5	0.2	3.7	15	0.5	260	66	0.2	4.3	0.2	0.9	0.5	2.0
1st quartile	9	0.2	0.2	5.3	6.0	0.1	700	0.5	0.2	3.9	16	0.5	260	73	0.2	4.7	0.2	1.6	0.5	2.0
Median	10	0.2	0.2	8.2	8.0	0.1	910	0.5	0.2	4.6	30	0.5	325	98	0.2	5.4	0.2	2.0	0.5	4.0
3rd quartile	24	0.2	0.2	9.4	9.0	0.1	1300	0.5	0.2	6.4	35	0.5	370	110	0.2	6.8	0.2	2.2	0.5	5.0
Maximum	24	0.2	0.2	10.0	9.0	0.1	1500	0.5	0.2	6.7	53	0.5	390	110	0.2	7.1	0.3	2.3	0.5	6.0
Mean	14	0.2	0.2	7.6	7.5	0.1	993	0.5	0.2	5.0	30	0.5	322	92	0.2	5.6	0.2	1.8	0.5	3.8
CV (std. dev./mean)	56%	0%	0%	30%	22%	0%	34%	0%	0%	26%	48%	0%	17%	20%	0%	21%	19%	29%	0%	42%
Skewness	0.9			-0.6	-0.8		0.7			0.6	0.7		-0.1	-0.7		0.3	2.4	-1.3		0

6 wild blueberries samples were collected. Concentrations are in µg/g dry wt.

Comparison of the nickel content of the wild blueberries from the Sudbury area with those from the control area indicates that nickel and copper accumulation is higher in the Sudbury blueberries. The range of nickel for the Sudbury blueberries was 4.3 to 7.1 µg/g with a mean of 5.6 µg/g. These results are consistent with those found for the Sudbury area in a previous study (Bagatto 1990) where the results were based on washed samples whereas the MOE samples were unwashed. The wild blueberry control site had a nickel concentration range of 0.7 to 0.9 µg/g with a mean of 0.8 µg/g. This difference in means indicates a ratio of 7:1. The mean copper concentration for the Sudbury and control blueberries was 5.0 µg/g and 2.6 µg/g, respectively. This indicates a 2 fold increase in the copper content in the Sudbury berries in comparison to the control. The copper content measured in the Sudbury and control unwashed blueberry samples were lower than the mean concentration of 7.8 µg/g Cu previously reported for washed wild blueberries across Canada (Sheppard 1991).

7.4.2 Commercial Produce Summary

Market garden produce and commercial and wild blueberries were collected from the City of Greater Sudbury in July and August of 2001. Berry samples were collected late in the season which resulted in picking berries that were not optimal for consumption and more specifically, picking berries that were extremely over ripe. The extreme ripeness of the berry samples prohibited proper washing as would be expected prior to consumption. It is expected that the metal levels would be higher in unwashed samples compared to those that are washed. MOE has demonstrated that washing of vegetation samples collected in the Sudbury area before processing substantially reduces the metal content (Balsillie 1978 and MOE 1993b). The market garden produce was thoroughly washed prior to processing; however, due to the lateness of the growing season, a control sample for each vegetable sampled within the City of Greater Sudbury was not collected. Banana peppers, pumpkin, radish, yellow tomato, potato, and zucchini were not available at the control site and therefore, there is no way to compare the metal values obtained for these vegetables from the Sudbury area with an appropriate control.

A higher nickel content in the produce grown in the Sudbury area in comparison to the control areas was observed. This increase in nickel was clearly evident in carrots, tomatoes, wild blueberries, raspberries, and to a lesser extent, strawberries. Neither Provincial, Federal nor International guidelines are available for comparison of berries or market garden produce with respect to human health.

Soil samples were taken in close proximity to where the produce and berries were grown. At two of the Sudbury wild blueberry sites soil levels of arsenic, copper, nickel, and selenium were found to be above both the MOE Table F Soil Background Guidelines and the MOE Table A criteria. Nickel concentrations were above MOE Table F background concentrations at approximately half of the commercial market garden sites and at less than 20 per cent of the commercial berry sites. Soil metal results reported herein are similar to those reported historically (MOE 1990 and MOE 2001) despite the fact that historically data was reported for 0-5 cm undisturbed soil, whereas, data presented here was 0 -15 cm or 0 - 10 cm tilled soil.

7.4.3 Residential Produce

Residential garden sampling was limited to the communities of Coniston, Copper Cliff, Falconbridge, Gatchell and North Lively. The majority of the sampling was done in the first three communities as these communities either currently have smelting operations located in them or had historically and therefore would be the most impacted. The majority of the sampling was done between August 14 to 16, 2001 with samples collected at three additional sites on September 5 and 6, 2001. No residential control gardens were collected and currently there are not any Provincial, Federal or International guidelines available for evaluation of metal content in produce. The results of residential garden sampling will be limited to comparisons with the Sudbury market garden results and the market garden controls. These comparisons are done in Section 7.4.4. For all of the discussion and summary tables in Sections 7.4.3.1 to 7.4.3.5 all sample data was used. The results of the 12 samples suspected of being contaminated during sample processing were not removed.

7.4.3.1 Coniston

The concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Coniston where similar to or lower than the concentrations in the adjacent yards. In the case of aerial depositon, garden soils would normally be lower than the adjacent yard soil as the soil in a garden is either mixed with the deeper soil or better soil is brought in for the garden area. In either case the result is dilution of the elements. There were 4 out of 15 properties with exceedences of Table A for copper and 7 for nickel with the highest copper concentration of 400 µg/g and nickel of 570 µg/g. No other elements exceeded Table A criteria. There were 2 arsenic, 4 zinc, 1 cobalt, 1 lead, 1 selenium, 4 copper and 7 nickel exceedences of the Table F criteria. Refer to Table 7.4.3.1.1 for an abbreviated summary of the Coniston garden soil results and Section 10.3.2 and Appendix A for the detailed summaries and results.

Table 7.4.3.1.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from Coniston in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5500	0.4	2.5	33	0.4	2600	20	6	19	8900	4	1900	84	0.75	39	0.5	25	18	30
10^{th} percentile	7400	0.4	2.5	53	0.4	6320	23	6	54	12000	11	2780	190	0.75	61	0.5	34	21	33
1st quartile	8700	0.4	2.5	56	0.4	7300	27	7	60	14000	13	3050	225	0.75	84	0.5	39	26	46
Median	11000	0.4	6.0	72	0.4	8900	31	9	100	15000	22	3700	250	0.75	130	0.5	42	30	64
3rd quartile	13000	0.4	12	88	0.4	12500	34	15	245	17000	36	4050	280	0.75	315	0.5	48	34	105
95^{th} percentile	13000	0.4	18	110	0.4	19000	39	22	352	18000	108	5840	300	0.75	508	1.4	53	37	186
Maximum	14000	0.4	19	120	0.8	24000	40	24	400	20000	170	6600	320	0.75	570	2.0	54	38	210
Mean	10490	0.4	7.4	74	0.4	10134	30	11	142	15100	33	3693	244	0.75	190	0.6	42	29	83
CV (std. dev./mean)	21%	0%	70%	30%	18%	47%	18%	47%	77%	17%	111	28%	22%	0%	83%	64%	18%	18%	61%
Skewness	-0.4		0.8	0.3	5.4	1.2	-0.2	1.3	1.0	-0.7	2.9	1.2	-1.6		1.2	3.6	-0.5	-0.5	1.2

Number of samples n = 29 Concentrations are in µg/g dry wt.

There were 48 vegetable samples collected from 15 residential gardens in Coniston. Nickel concentrations ranged from less than the method detection limit (<MDL) to 49 µg/g with a mean of 8.8 µg/g. Copper ranged from 1.9 to 24 µg/g with a mean of 8.7 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 1.0 µg/g. The majority of the vegetable samples had lead concentrations <MDL with only two samples greater than 2 µg/g. Both of the samples with high lead are suspected of being contaminated during sample processing. Refer to Appendix G for details about lead contamination during sample processing. Refer to Table 7.4.3.1.2 for an abbreviated summary of the Coniston garden vegetable results and Section 10.3.4 and Appendix A for the complete summaries and detailed results.

Table 7.4.3.1.2: Summary of Metals and Arsenic in All Coniston Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	120	0.5	0.2	2	16	0.5	540	2	0.2	1	0.2	0.6	0.5	6
10^{th} percentile	5	0	0.2	1	10	0.1	886	0.5	0.2	4	23	0.5	973	5	0.2	1	0.2	1.1	0.5	10
1st quartile	5	0.2	0.2	1	14	0.1	1400	0.5	0.2	5	35	0.5	1200	6	0.3	3	0.2	2.3	0.5	15
Median	14	0.2	0.2	3	18	0.1	2300	0.5	0.2	7	67	0.5	1800	11	0.5	7	0.2	7.2	0.5	22
3rd quartile	53	0.2	0.2	12	23	0.2	5450	0.7	0.3	11	110	0.5	3300	14	0.7	10	0.2	13	0.5	35
95^{th} percentile	213	0.2	0.6	37	34	0.6	19000	1.3	0.4	19	287	1.8	7120	32	3.5	27	0.5	34	0.5	79
Maximum	1100	0.2	1.0	60	43	0.8	21000	3.8	1.4	24	1600	110	12000	59	17	49	1.2	41	2.8	300
Mean	63	0.2	0.3	9	19	0.2	5268	0.7	0.3	9	122	3.1	2573	13	1.3	9	0.2	10	0.6	33
CV (std. dev./mean)	262 %	0%	63 %	149 %	41 %	80 %	120%	73 %	82 %	63 %	194 %	515 %	86%	87 %	220 %	107 %	67 %	106 %	61 %	131 %
Skewness	5.6		2.9	2.5	1.0	2.0	1.5	4.9	4.2	1.3	5.6	6.9	2.4	2.5	4.4	2.5	4.7	1.5	6.5	5.2

Number of samples n = 48 Concentrations are in µg/g dry wt.

7.4.3.2 Copper Cliff

In general, the concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Copper Cliff were substantially lower than the concentrations in the adjacent yards. There was one property where the garden soil concentrations were marginally higher than the yard concentrations and two properties where the garden soil lead concentrations were substantially higher than the yard soil. Out of the 9 properties sampled there were 8 copper and nickel, 3 arsenic, 1 lead and 1 selenium exceedences of the Table A criteria. There were 3 cobalt, 1 nickel, 1 copper, 1 arsenic, 1 lead and 7 selenium exceedences of the Table F criteria. Garden soil concentrations of nickel ranged from 130 to 800 µ/g, copper from 140 to 820 µg/g, lead from 16 to 640 µg/g and arsenic from <MDL to 38 µg/g. These were considerably higher than the garden soils in Coniston. At the property with the highest lead concentrations, pieces of what appeared to be slag were observed in the samples. Similar material was observed in the 10 to 20 cm back yard samples which also had the highest lead concentrations in the yard soil. Refer to Table 7.4.3.2.1 for an abbreviated summary of the Copper Cliff garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.2.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from Copper Cliff in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7700	0.4	2.5	38	0.4	5000	19	7	140	8600	16	2400	120	0.75	130	0.5	35	16	32
10th percentile	9200	0.4	7.0	43	0.4	6300	26	8	230	12000	19	3000	160	0.75	200	1.0	37	22	40
1st quartile	10000	0.4	8.0	63	0.4	6800	27	11	280	13000	20	3200	180	0.75	275	1.5	39	25	43
Median	11000	0.4	16	77	0.4	8600	31	18	470	17000	69	3800	220	0.75	430	2.0	43	28	84
3rd quartile	12000	0.9	28	100	1.0	16000	35	21	700	19000	145	6000	240	0.75	615	3.0	48	31	130
95th percentile	13000	1.4	38	270	1.9	34000	43	23	820	2100	530	7100	670	1.70	800	12	130	35	330
Maximum	13000	1.5	58	330	3.8	38000	64	110	5100	3300	640	7100	780	3.7	3700	36	160	38	380
Mean	11024	0.7	19	97	0.9	12681	32	20	682	1687	125	4462	264	0.94	578	5	53	28	114
CV (std. dev./mean)	14%	53%	74%	75%	91%	70%	29%	104	151%	30%	136	35%	62%	71%	128%	171	60%	20%	81%
Skewness	-0.7	0.9	1.3	2.5	2.6	1.9	1.9	4.1	4.3	1.2	2.3	0.5	2.5	4.0	4.1	3.6	3.0	-0.7	1.9

Number of samples n = 21 Concentrations are in µg/g dry wt.

There were 49 vegetable samples collected from 9 residential gardens in Copper Cliff. Nickel concentrations ranged from 0.7 to 180 µg/g with a mean of 25 µg/g. Copper ranged from 2.3 to 230 µg/g with a mean of 27 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 9 µg/g. Half of the vegetable samples had lead concentrations <MDL . One of the samples with lead greater than 2 µg/g was a root vegetable suspected of being contaminated during sample processing. The other samples with lead higher than 2.0 µg/g also had high nickel, copper, selenium and arsenic concentrations. These sample were all leafy vegetables that also had high concentrations of aluminum and vanadium. The ratios of aluminum to lead in the vegetables were similar to the ratios in the garden soil. The higher concentrations of these elements in the leafy vegetables are attributed to soil particles remaining on the samples after washing. It is more difficult to wash leafy vegetables than root or fruit type vegetables. Refer to Appendix G for a more detailed discussion of this process. An abbreviated summary of the Copper Cliff garden vegetable results is given in Table 7.4.3.2.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.2.2: Summary of Metals and Arsenic in All Copper Cliff Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	490	0.5	0.2	2	15	0.5	290	4	0.2	0.7	0.2	0.7	0.5	2
10th percentile	5	0.2	0.2	1	5	0.1	842	0.5	0.2	5	26	0.5	418	6	0.2	1.5	0.2	1.1	0.5	5
1st quartile	7	0.2	0.2	3	7	0.1	1400	0.5	0.2	6	36	0.5	1100	13	0.2	5.3	0.2	2.2	0.5	12
Median	19	0.2	0.2	6	12	0.2	2300	0.5	0.2	8	73	0.5	1500	20	0.4	15	0.5	5.3	0.5	24
3rd quartile	135	0.2	0.6	13	20	0.3	5050	0.8	0.4	29	190	1.4	3300	39	1.1	33	1.5	17	0.5	45
95th percentile	620	0.2	2.1	29	33	1.2	20600	2.5	2.2	109	1060	17	5860	120	6.3	75	8.1	43	1.6	91
Maximum	1900	0.4	9.0	58	45	2.0	31000	6.4	4.9	230	2400	38	6400	380	9.4	180	22	52	5.1	120
Mean	177	0.2	0.7	10	15	0.3	5573	1.0	0.6	27	264	2.9	2383	45	1.2	25	2.0	11	0.8	32
CV (std. dev./mean)	212 %	14 %	197 %	114 %	63 %	130 %	125%	124 %	159 %	160 %	194 %	249 %	75%	166 %	173 %	135 %	209 %	121 %	110 %	90 %
Skewness	3.4	7.0	5.4	2.4	1.1	3.0	1.9	3.7	3.4	3.0	3.3	3.8	0.8	3.7	3	2.8	3.7	1.6	4.1	1.4

Number of samples n = 49 Concentrations are in µg/g dry wt.

7.4.3.3 Falconbridge

The concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Falconbridge were substantially lower than the concentrations in the adjacent yards. Out of the six properties sampled there were 6 arsenic, 7 nickel, 5 copper, 1 lead and 3 cobalt exceedences of the Table A criteria. There were 6 arsenic, 4 cadmium, 1 chromium, 9 nickel, 5 cobalt, 7 copper, 1 lead and 4 selenium exceedences of the Table F criteria. Garden soil concentrations of nickel ranged from 60 to 1400 µ/g, copper from 45 to 1700 µg/g, lead from 7 to 240 µg/g and arsenic from 6 to 400 µg/g. The nickel, copper and arsenic concentrations in the Falconbridge garden soil were higher than the garden soils in Copper Cliff while lead concentrations were lower than Copper Cliff. Refer to Table 7.4.3.3.1 for an abbreviated summary of the Falconbride garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.3.1: Summary Statistics for Residential Garden Soil from Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	6	32	0.4	2200	21	8	45	8700	7	1600	96	0.75	60	0.5	18	20	23
1st quartile	7600	0.4	11	35	0.4	3400	23	11	98	11300	13	1850	115	0.75	136	0.5	23	23	32
Median	8000	0.4	26	48	0.4	5600	28	22	360	14000	34	2400	160	0.75	360	0.5	30	25	45
3rd quartile	9600	0.4	115	63	1.7	9950	46	49	895	22500	108	2950	190	0.75	1030	2.0	36	29	112
95th percentile	10440	1.0	288	79	2.4	17400	66	65	1460	32600	192	4280	206	2.42	1280	5.4	42	33	146
Maximum	11000	1.2	400	88	2.8	21000	77	73	1700	37000	240	4800	210	2.50	1400	7.0	45	35	150
Mean	8600	0.5	88	51	1.1	7544	36	31	551	17367	70	2567	155	1.12	581	1.8	30	26	69
CV (std. dev./mean)	15%	53%	142%	35%	82%	78%	50%	74%	101%	52%	110	39%	27%	65%	85%	117	29%	18%	69%
Skewness	0.9	2.1	2.3	1.0	0.9	1.7	1.6	0.8	1.2	1.5	1.6	1.6	-0.2	1.64	0.5	2.1	0.2	0.9	0.9

Number of samples n = 9 Concentrations are in µg/g dry wt.

There were far fewer residential vegetable gardens and they tended to be much smaller than those in Coniston, Copper Cliff and Gatchell. All but two of the vegetable gardens in Falconbridge were sampled. There were only 12 vegetable samples collected from 6 residential gardens in Falconbridge. Nickel concentrations ranged from 9 to 51 µg/g with a mean of 31 µg/g. Copper ranged from 6 to 25 µg/g with a mean of 10 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 1.9 µg/g. The majority of the vegetables sampled had lead concentrations <MDL. The two samples with lead greater than 2 µg/g were suspected of being contaminated during sample processing. There were no leafy vegetables sampled in the Falconbridge gardens. Refer to Appendix G for a more detailed discussion of the lead contamination during sample processing. The concentrations of nickel and copper in the Falconbridge garden vegetables were similar to the Coniston garden vegetables and lower than the Copper Cliff garden vegetables.

An abbreviated summary of the Falconbridge garden vegetable results is given in Table 7.4.3.3.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.3.2: Summary of Metals and Arsenic in All Falconbridge Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	6	0.1	290	0.5	0.4	6	35	0.5	1000	7	0.2	9	0.2	0.7	0.5	15
10th percentile	5	0.2	0.2	0.5	8	0.1	702	0.5	0.4	6	37	0.5	1110	8	0.3	17	0.2	1.0	0.5	17
1st quartile	5	0.2	0.2	0.8	11	0.2	1100	0.5	0.6	7	44	0.5	1200	9	0.4	19	0.2	1.6	0.5	20
Median	8	0.2	0.2	1.3	18	0.2	1900	0.5	1.1	8	65	0.5	2450	11	0.6	31	0.2	2.5	0.5	32
3rd quartile	20	0.2	0.6	5.4	19	0.3	3200	0.5	1.8	12	110	1.6	3200	20	0.7	44	0.2	9.1	0.5	48
95th percentile	69	0.2	1.5	14	21	0.5	5090	0.6	2.1	18	180	62	4005	23	0.9	49	0.2	14	0.5	72
Maximum	82	0.3	1.9	24	23	0.5	5200	0.8	2.2	25	180	130	4500	24	1.1	51	0.2	16	0.5	92
Mean	19	0.2	0.5	4.1	15	0.2	2339	0.5	1.2	10	85	12	2367	14	0.6	31	0.2	5.3	0.5	37
CV (std. dev./mean)	129%	14%	109%	162%	36%	54%	69%	16%	55%	55%	61%	311%	50%	45%	44%	44%	0%	100%	0%	60%
Skewness	2.0	3.5	2.1	2.9	-0.3	1.4	0.7	3.5	0.2	2.2	1.0	3.5	0.3	0.5	0.7	-0.1		1.2		1.5

Number of samples n = 12 Concentrations are in µg/g dry wt.

7.4.3.4 Gatchell

The concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Gatchell were either similar or marginally lower than the concentrations in the adjacent yards. Out of the three properties sampled there were 2 nickel and copper exceedences of the Table A criteria and one 1 nickel and copper exceedence of the Table F criteria. Garden soil concentrations of nickel ranged from 120 to 390 µ/g, copper from 130 to 440 µg/g, lead from 21 to 120 µg/g and arsenic from 5 to 12 µg/g. The nickel, copper, lead and arsenic concentrations in the Gatchell garden soils were very similar to the garden soils in Coniston. Refer to Table 7.4.3.4.1 for an abbreviated summary of the Gatchell garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.4.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from Gatchell in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7200	0.4	2.5	54	0.4	3500	28	8	130	14000	21	2700	170	0.8	120	0.5	22	25	58
1st quartile	8100	0.4	5.0	68	0.4	5100	28	9	140	14000	23	3600	260	0.8	120	0.5	29	25	65
Median	9050	0.4	6.0	78	0.4	6350	28	12	230	15000	69	3900	290	0.8	225	0.8	32	27	81
3rd quartile	10000	1.0	11	120	0.4	12000	35	12	260	16000	88	4300	400	0.8	270	1.0	52	28	170
95th percentile	10000	1.0	12	128	0.4	12750	51	14	395	16000	120	4375	415	0.8	293	1.0	52	28	178
Maximum	10000	1.0	12	130	0.4	13000	56	15	440	16000	130	4400	420	0.8	300	1.0	52	28	180
Mean	8900	0.6	7.1	88	0.4	7717	34	11	238	15000	67	3800	305	0.8	210	0.8	36	27	106
CV (std. dev./mean)	14%	52%	52%	35%	0%	50%	33%	22%	47%	7%	64%	16%	30%	0%	37%	37%	35%	6%	52%
Skewness	-0.3	1.0	0.4	0.6		0.6	2.1	0.3	1.3	0.0	0.4	-1.2	-0.1		-0.2	0.0	0.6	0.0	0.8

Number of samples n = 6 Concentrations are in µg/g dry wt.

While only the three smelter communities were supposed to have residential gardens sampled, the proximity of Gatchell to the Copper Cliff plants and the high number of large gardens in the community warranted some garden sampling. There were 21 vegetable samples collected from three residential gardens sampled in Gatchell. Nickel concentration ranged from 2 to 41 µg/g with a mean of 14 µg/g. Copper ranged from 3 to 64 µg/g with a mean of 20 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 2.3 µg/g. The majority of the vegetable samples had lead concentrations <MDL . None of the vegetable samples collected in Gatchell were suspected of being contaminated with lead during the sample processing. There were a number of samples with lead higher than 2.0 µg/g. These also had high nickel, copper, selenium and arsenic concentrations. These samples were all leafy vegetables that also had high concentrations of

aluminum and vanadium. The ratios of aluminum to lead in the vegetables were similar to the ratios in the garden soil. The higher concentrations of these elements in the leafy vegetables are attributed to soil particles remaining on the samples after washing. It is more difficult to wash leafy vegetables than root or fruit type vegetables. Refer to Appendix G for a more detailed discussion of this process. The concentrations of nickel and copper in the Gatchell garden vegetables were similar to the Coniston garden vegetables and lower than the Copper Cliff garden vegetables. An abbreviated summary of the Gatchell garden vegetable results is given in Table 7.4.3.4.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.4.2: Summary Statistics for Metals and Arsenic in Gatchell Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	190	0.5	0.2	2.6	24	0.5	730	4	0.2	2.3	0.2	0.5	0.5	8
10th percentile	5	0.2	0.2	1.0	10	0.1	1300	0.5	0.2	4.8	53	0.5	900	5	0.2	2.9	0.2	2.0	0.5	13
1st quartile	6	0.2	0.2	2.0	12	0.1	1850	0.5	0.2	6.6	60	0.5	1300	8	0.3	4.4	0.2	5.2	0.5	16
Median	63	0.2	0.2	4.3	20	0.1	5000	0.7	0.2	13	120	0.5	3200	14	0.7	13	0.3	12	0.5	39
3rd quartile	230	0.2	0.8	15	27	0.3	9000	1.2	0.4	26	335	2.1	3800	26	2.0	23	0.4	23	0.5	46
95th percentile	810	0.2	1.5	31	31	0.6	19000	3.2	0.9	57	1100	4.9	6200	47	3.0	27	1.0	43	2.3	59
Maximum	1300	0.2	2.3	37	33	1.0	30000	4.7	2.2	64	1800	11	8400	91	3.5	41	1.6	49	3.3	78
Mean	194	0.2	0.6	10	19	0.2	6790	1.1	0.4	20	298	1.8	3167	20	1.1	14	0.4	15	0.8	35
CV (std. dev./mean)	170%	0%	103%	110%	42%	94%	105%	94%	105%	89%	147%	139%	63%	100%	95%	72%	79%	89%	91%	52%
Skewness	2.4		1.7	1.3	-0.1	2.2	2.1	2.5	2.9	1.4	2.5	2.7	1.0	2.4	1.0	0.9	2.2	1.2	2.8	0.3

Number of samples n = 21 Concentrations are in µg/g dry wt.

Six residential vegetable gardens were sampled by the Ministry in the Gatchell community in 1993. A total of 23 samples were collected, 4 root vegetables, 1 fruit vegetable and 13 leafy vegetables. While there were differences in the number of properties sampled, number of samples collected and the types of vegetables collected between the 1993 and 2001 studies, the concentrations of nickel, copper, cobalt, arsenic and lead were similar. There was also a difference between the leafy vegetables and the root and fruit vegetables in the 1993 study with concentrations higher in the leafy vegetables for most elements across the whole concentration ranges. Refer to Table 7.4.3.4.2 for a summary of the results presented in the 1993 report (MOE 1993b).

Table 7.4.3.4.2: Summary Statistics for Gatchell Residential Garden Vegetables collected in 1993

	As	Co	Cu	Fe	Pb	Mg	Ni	Se	Zn
Minimum	0.2	0.2	9	84	0.5	490	7	0.3	32
1st quartile	0.2	0.2	20	150	0.6	3100	14	0.3	33
Median	0.6	0.5	25	200	1	4300	21	0.5	45
3rd quartile	0.7	0.6	25	270	1.2	4900	25	0.7	67
Maximum	1.7	0.9	48	820	2.2	13000	31	1.8	94
Mean	0.6	0.5	25	270	1.1	5600	21	0.6	52

- there were 13 vegetables collected in Gatchell. Concentrations are in µg/g dry wt.

7.4.3.5 North Lively

The gardens in North Lively were not originally planned to be sampled. They were added at the request from the local Ministry office to investigate the potential of dust blowing off of tailings beside these residential properties. The concentrations of nickel, copper, cobalt and arsenic in the residential garden soils in North Lively where either similar or marginally lower than the concentrations in the adjacent yards. On two properties the lead concentrations were higher in the garden soil than the adjacent yards.Out of the three properties sampled there were no Table A criteria exceedences and only 4 nickel and two copper exceedences of the Table F criteria. Garden

soil concentrations of nickel ranged from 73 to 150 µ/g, copper from 60 to 120 µg/g, lead from 28 to 110 µg/g and arsenic from 5 to 9 µg/g. The nickel, copper, lead and arsenic concentrations in the North Lively garden soils were the lowest of all the community garden soils sampled. The influence of dust blowing off of the tailings on the concentrations in the soil was smaller than the smelter emissions in the other four communities. Refer to Table 7.4.3.5.1 for an abbreviated summary of the North Lively garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.5.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from North Lively in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	11000	0.4	2.5	60	0.4	7700	28	8	60	17000	28	4200	270	0.75	73	0.5	28	33	76
1st quartile	13000	0.4	2.5	76	0.4	8850	29	8	70	19500	33	4950	285	0.75	77	0.5	43	36	95
Median	14500	0.4	4.8	92	0.4	9950	33	8	101	21000	45	5900	310	0.75	111	0.5	49	39	97
3rd quartile	19500	0.6	8.0	115	0.4	12000	43	10	115	22500	87	6650	330	0.75	135	0.5	57	42	105
95th percentile	21650	1.0	8.7	127	0.7	13950	50	11	120	24300	104	6895	347	1.24	147	0.5	70	45	110
Maximum	22000	1.1	9.0	130	0.8	15000	50	11	120	25000	110	7000	350	1.50	150	0.5	72	46	110
Mean	15875	0.5	5.3	94	0.5	10538	36	9	94	21000	58	5775	309	0.84	109	0.5	50	39	97
CV (std. dev./mean)	25%	50%	57%	26%	31%	22%	25%	13%	26%	12%	55%	18%	9%	31%	30%	0%	28%	11%	11%
Skewness	0.6	1.8	0.1	0.2	2.8	0.9	1.0	1.4	-0.4	0.0	0.7	-0.5	0.1	2.8	0.0		0.3	0.2	-1

Number of samples n = 8 Concentrations are in µg/g dry wt.

There were 18 vegetable samples collected from the three residential gardens sampled in North Lively. One property had two large separate gardens. Nickel concentrations ranged from 5 to 110 µg/g with a mean of 23 µg/g. Copper ranged from 4 to 98 µg/g with a mean of 21 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 1.1 µg/g. Seven of the 21 vegetable samples were suspected of being contaminated with lead and nickel during sample processing. In addition, there were two lettuce samples with lead higher than 2.0 µg/g. These samples also had high concentrations of aluminum and vanadium. As previously mentioned, the higher concentrations of lead in the leafy vegetables is attributed to soil particles remaining on the samples after washing. It is more difficult to wash leafy vegetables than root or fruit type vegetables. The concentrations of nickel and copper in the North Lively garden vegetables were similar to the Gatchell and Coniston garden vegetables and lower than the Copper Cliff garden vegetables. An abbreviated summary of the Gatchell garden vegetable results is given in Table 7.4.3.5.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.5.2: Summary Statistics for Metals and Arsenic in Lively Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.3	10	0.1	680	0.5	0.2	3.6	23	0.5	990	5	0.2	2.1	0.2	2	0.5	10
10th percentile	5	0.2	0.2	1.9	16	0.1	1047	0.5	0.2	8.8	48	0.5	1347	6	0.2	3.0	0.2	3.3	0.5	19
1st quartile	11	0.2	0.2	2.7	20	0.1	1600	0.5	0.2	10	68	0.7	1800	10	0.2	4.5	0.2	6.7	0.5	27
Median	35	0.2	0.2	10	24	0.2	3050	0.5	0.2	15	90	2.4	2850	14	0.5	6.0	0.2	11	0.5	34
3rd quartile	150	0.2	0.2	25	27	0.2	7500	1.1	0.3	26	210	42	4000	19	1.5	19	0.2	24	0.5	41
95th percentile	1057	0.3	0.5	42	33	1.2	15450	2.8	1.0	44	1440	96	7560	56	4.7	83	0.2	49	2.7	110
Maximum	2000	0.3	1.1	50	37	1.6	18000	4.9	1.9	98	2800	260	13000	110	5.7	190	0.3	67	4.6	110
Mean	221	0.2	0.3	14	24	0.3	5554	1.0	0.4	21	335	32	3449	21	1.4	23	0.2	19	0.9	41
CV (std. dev./mean)	223%	15%	78%	99%	27%	139%	96%	108%	114%	100%	202%	193%	80%	118%	128%	193%	11%	95%	120%	68%
Skewness	3.2	2.7	3.6	1.3	0.0	2.8	1.3	3.1	3.5	3.2	3.3	3.3	2.6	3.1	1.6	3.3	4.2	1.5	3.3	1.8

Number of samples n = 18 Concentrations are in µg/g dry wt.

7.4.4 Market Garden and Residential Produce Comparisons

With the exception of lead, the removal of the data for the 12 residential garden vegetables suspected of being contaminated during sample processing have very little effect on the overall results. Summary statistics for all the residential garden vegetables, including the 12 samples in question, are given in Table 7.4.4.1. Table 7.4.4.2 consists of the same data with the 12 samples in question removed. There is little difference between the two summaries except for lead where there was a decrease from the 75th percentile and higher in the second set of results. For the rest of the discussion comparing the root, fruit and leafy vegetables and for comparing residential garden vegetables to the commercial market garden vegetables the results with the 12 samples removed will be used.

Table 7.4.4.1: Summary Statistics for Metals and Arsenic in All Residential Garden Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.7	7.0	0.1	838	0.5	0.2	5	26	0.5	840	5	0.2	2.1	0.2	1.2	0.5	10
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	8	0.2	4.5	0.2	2.4	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2700	0.5	0.2	9	80	0.5	2150	13	0.5	8.8	0.2	7.4	0.5	27
3rd quartile	82	0.2	0.4	14	23	0.3	5450	0.8	0.4	18	145	1.5	3500	23	1.1	23	0.4	16	0.5	44
95th percentile	620	0.2	1.4	35	33	0.8	19000	2.4	1.9	64	1065	39	6265	88	4.4	54	3.0	43	1.6	89
Maximum	2000	0.4	9.0	60	45	2.0	31000	6.4	4.9	230	2800	260	13000	380	17.0	190	22	67	5.1	300
Mean	135	0.2	0.5	10	18	0.3	5382	0.9	0.5	18	217	7.1	2684	26	1.2	18	0.8	12	0.7	34
CV (std. dev./mean)	237 %	11 %	179 %	125 %	48 %	116 %	118%	107 %	135 %	157 %	201 %	383 %	77%	183 %	181 %	146 %	298 %	111 %	100%	95%
Skewness	3.9	7.1	7.8	2.1	0.6	3.4	1.9	4.0	3.7	4.6	3.9	6.9	2.0	5.8	4.5	3.9	6.5	1.7	4.5	4.3

Number of samples n = 148 Concentrations are in µg/g dry wt.

Table 7.4.4.2: Summary Statistics for Metals and Arsenic in All Garden Vegetables Collected minus Root and Shoot >2.5 µg/g Lead

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2.2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.6	7	0.1	830	0.5	0.2	4	26	0.5	815	5.1	0.2	2	0.2	1.2	0.5	9
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	7.5	0.2	4.5	0.2	2.3	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2500	0.5	0.2	8	74	0.5	2250	13	0.5	8.2	0.2	7.1	0.5	26
3rd quartile	82	0.2	0.4	12	23	0.3	6350	0.8	0.4	18	145	1.1	3600	25	1.1	22	0.4	16	0.5	44
95th percentile	668	0.2	1.4	38	33	0.9	19250	2.4	1.9	63	1100	5.4	6325	96	4.8	52	3.3	42	1.8	87
Maximum	2000	0.4	9.0	60	45	2	31000	6.4	4.9	230	2800	38	13000	380	17	180	22	67	5.1	300
Mean	143	0.2	0.5	9.9	18	0.3	5561	0.9	0.5	18	227	1.8	2726	27	1.3	17	0.9	12	0.7	34
CV (std. dev./mean)	233 %	9%	184 %	128 %	49 %	116 %	118%	109 %	137 %	161 %	200 %	269 %	78%	182 %	180 %	136 %	292 %	114 %	101 %	98 %
Skewness	3.8	11.7	7.8	2.2	0.6	3.3	1.8	3.8	3.7	4.7	3.8	5.5	1.9	5.6	4.3	3.9	6.2	1.7	4.3	4.3

Number of samples n = 136 Concentrations are in µg/g dry wt.

All of the residential garden vegetable data from the 5 communities was combined and then split into root, fruit (beans, tomatoes, etc.), and leafy vegetables in Tables 7.4.4.3 through 7.4.4.5. There was little difference between the root and fruit vegetables. Arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese and vanadium concentrations are the same over the whole concentration range. Magnesium, nickel, selenium and zinc are marginally higher in the fruit vegetables at the higher end of the concentration ranges.

There was a large difference between the root and fruit vegetables and the leafy vegetables. All elements in the leafy vegetables have substantially higher concentrations over the whole concentration range than the roots and fruits. For most elements it was only the minimum concentrations that were the same in all three types. While some of the differences can be due to the leafy parts of the plants taking up more metals then the reproducing fruit and root storage parts of the plants, a lot of it can be attributed to the difficulty in washing all of the soil off of leafy

vegetables. The higher concentrations of aluminum and vanadium in the leafy vegetables and the correlation of the ratios of these two elements in the leaves with their ratios in the soil are highly indicative of soil particles not being removed in normal household type washing of leafy vegetables.

Table 7.4.4.3: Summary Statistics for Metals and Arsenic in All Residential Root Vegetables Collected minus >2.5 µg/g Lead

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2.6	21	0.5	290	3.4	0.2	0.8	0.2	0.5	0.5	2
10th percentile	8	0.2	0.2	0.7	5.0	0.1	270	0.5	0.2	4.4	29	0.5	870	4.9	0.2	1.7	0.2	0.8	0.5	10
1st quartile	13	0.2	0.2	2.4	8.0	0.1	1300	0.5	0.2	5.5	36	0.5	1150	5.9	0.2	2.5	0.2	1.8	0.5	14
Median	28	0.2	0.2	6.3	14	0.1	1700	0.5	0.2	6.8	69	0.5	1400	8.3	0.2	5.2	0.2	5.9	0.5	17
3rd quartile	59	0.2	0.2	17	18	0.2	2350	0.5	0.2	8.9	100	0.6	1750	17	0.4	8.2	0.2	9.3	0.5	28
95th percentile	87	0.2	0.5	32	23	0.3	3475	0.6	0.4	16	143	1.4	2700	110	0.6	18	0.5	12	0.5	42
Maximum	120	0.2	0.7	60	24	0.4	5600	0.9	0.5	27	160	1.6	3200	380	1.2	26	3.0	18	0.5	56
Mean	38	0.2	0.2	11	13	0.2	1788	0.5	0.2	8.0	73	0.7	1488	28	0.3	6.6	0.3	5.9	0.5	20
CV (std. dev./mean)	79%	0%	47%	121%	46%	51%	63%	13%	31%	57%	54%	48%	45%	236%	66%	85%	153%	72%	0%	58%
Skewness	0.9		3.6	2.3	0.1	1.3	1.0	5.1	3.1	2.4	0.5	2.1	0.6	4.7	2.8	1.9	5.8	0.6		1.3

Number of samples n = 36 Concentrations are in µg/g dry wt.

Table 7.4.4.4: Summary Statistics for Metals and Arsenic in All Residential Fruit Vegetables Collected minus >2.5 µg/g Lead

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	490	0.5	0.2	1.9	15	0.5	310	2.2	0.2	0.5	0.2	0.7	0.5	4
10th percentile	5	0.2	0.2	0.6	8	0.1	949	0.5	0.2	4.5	25	0.5	788	5.7	0.2	2.4	0.2	1.3	0.5	9
1st quartile	5	0.2	0.2	1.1	12	0.1	1500	0.5	0.2	5.6	40	0.5	1200	9.4	0.4	5.4	0.2	2.3	0.5	17
Median	12	0.2	0.2	4.9	19	0.2	4300	0.5	0.2	10	81	0.5	3050	15	0.7	11	0.2	8.0	0.5	32
3rd quartile	160	0.2	0.6	12	26	0.3	12000	1.1	0.6	23	235	1.4	4250	30	1.6	26	0.6	22	0.5	47
95th percentile	900	0.2	1.6	37	34	1.1	20050	3.2	2.0	65	1220	8.0	6675	69	6.1	53	4.8	43	2.4	96
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	370	17	180	22	67	5.1	300
Mean	181	0.2	0.5	9.6	19	0.3	6920	1.0	0.6	21	282	2.2	3171	27	1.6	20	1.1	14	0.8	39
CV (std. dev./mean)	211%	10%	179%	132%	46%	115%	103%	107%	130%	154%	184%	253%	73%	157%	160%	125%	272%	107%	105%	95%
Skewness	3.1	10.0	6.8	2.1	0.5	2.8	1.3	3.2	3.2	4.1	3.1	4.7	1.6	6.1	3.7	3.4	5.4	1.3	3.6	3.9

Number of samples n = 100 Concentrations are in µg/g dry wt.

Table 7.4.4.5: Summary Statistics for Metals and Arsenic in All Residential Leafy Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	18	0.2	0.2	1.2	5	0.1	1200	0.5	0.2	6	41	0.5	1200	4	0.2	3.4	0.2	1.2	0.5	17
10th percentile	49	0.2	0.2	7.5	17	0.2	4540	0.6	0.2	14	120	0.5	2880	14	0.3	7.2	0.2	14	0.5	26
1st quartile	84	0.2	0.3	10	20	0.3	9650	0.7	0.3	20	170	0.7	3400	17	0.4	10	0.2	20	0.5	40
Median	270	0.2	0.6	16	26	0.4	14000	1.3	0.5	26	370	1.7	4400	31	0.9	23	0.6	27	0.6	46
3rd quartile	600	0.2	1.3	30	31	0.7	19000	2.4	1.2	58	885	4.1	6150	48	1.7	50	1.3	41	1.5	78
95th percentile	1660	0.2	2.3	52	39	1.6	24400	5.1	2.6	136	2400	24	9200	73	3.4	93	4.2	50	4.2	110
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	110	6.5	180	5.3	67	5.1	300
Mean	462	0.2	1.0	21	26	0.6	14230	1.8	0.9	45	665	5.0	5084	36	1.3	33	1.0	29	1.3	61
CV (std. dev./mean)	112%	16%	142%	71%	32%	81%	48%	87%	109%	100%	106%	172%	48%	63%	100%	106%	127%	47%	95%	79%
Skewness	1.7	6.1	4.5	1.2	0.0	1.6	0.2	1.7	2.4	2.7	1.7	2.7	1.6	1.3	2.4	2.6	2.2	0.5	1.9	3.7

Number of samples n = 37 Concentrations are in µg/g dry wt.

While there were considerably fewer commercial market garden samples collected compared to the residential samples, a similar pattern was observed between the root, fruit and leafy market garden vegetables. Refer to Tables 7.4.4.6 through 7.4.4.8. Arsenic, cadmium, chromium, cobalt copper, iron, lead, manganese, selenium, vanadium and zinc concentrations over the whole concentration range were very similar in both the market garden root and fruit vegetables. The concentrations of nickel in the fruit vegetables were approximately twice the concentration in the root vegetables. In the leafy market garden vegetables the concentrations of every element except for nickel, selenium and zinc where higher than either the root or fruit vegetables. The difference was not as great for cadmium, chromium, copper or lead as was observed in the residential garden vegetables but this would be expected as the concentrations of these elements in the market garden soils were lower

than in the residential soils. The aluminum, barium, magnesium, manganese, and vanadium concentration ranges in the market garden leafy vegetables were similar to the residential leafy vegetable concentration ranges. This would be expected as these are not elements associated with smelter emissions and all the samples were washed the same way and therefore, all of the soil particles
would not have been removed.

Table 7.4.4.6: Summary Statistics for Metals and Arsenic in Market Garden Root Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	15	0.2	0.2	0.5	6.0	0.1	220	0.5	0.2	5.9	26	0.5	1100	3.7	0.2	0.5	0.2	0.6	0.5	12
10th percentile	21	0.2	0.2	0.5	6.0	0.1	256	0.5	0.2	6.8	46	0.5	1100	4.8	0.2	0.6	0.2	0.6	0.5	13
1st quartile	35	0.2	0.2	0.6	7.0	0.2	310	0.5	0.2	7.8	55	0.5	1100	7.9	0.2	1.0	0.2	0.9	0.5	16
Median	96	0.2	0.2	1.1	9.0	0.3	540	0.5	0.2	8.3	130	0.5	1250	9.7	0.2	3.7	0.2	1.4	0.5	20
3rd quartile	150	0.2	0.2	25	19	0.8	2400	0.7	0.3	10	210	0.5	1900	23	0.2	11	0.2	11	0.5	31
95th percentile	1053	0.2	0.9	80	24	2.2	1365	2.9	1.0	17	1143	2.4	1395	213	1.0	17	0.2	39.2	2.6	38
Maximum	370	0.2	0.3	41	28	1.0	2800	1.2	1.1	16	390	0.8	3200	110	1.1	21	0.2	15	0.9	35
Mean	110	0.2	0.2	12	13	0.4	1156	0.6	0.3	9.2	147	0.5	1671	24	0.3	6.0	0.2	5.2	0.5	22
CV (std. dev./mean)	86%	0%	17%	123%	58%	80%	89%	33%	80%	30%	69%	17%	44%	130%	95%	101%	0%	108%	20%	37%
Skewness	1.6		2.3	0.9	0.8	1.0	0.6	2.1	2.8	1.5	1.0	2.5	1.3	2.2	2.2	1.4		0.8	3.7	0.3

14 of the 44 vegetables samples collected were root vegetables. Concentrations are in µg/g dry wt.

Table 7.4.4.7: Summary Statistics for Metals and Arsenic in Market Garden Fruit Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5.0	0.2	0.2	0.5	11	0.1	380	0.5	0.2	4.0	23	0.5	1100	7.1	0.2	0.5	0.2	0.5	0.5	12
10th percentile	5.0	0.2	0.2	0.6	13	0.1	930	0.5	0.2	5.8	32	0.5	1410	9.0	0.2	1.6	0.2	1.0	0.5	14
1st quartile	5.0	0.2	0.2	1.5	14	0.1	1500	0.5	0.2	6.7	51	0.5	1700	13	0.3	3.3	0.2	3.6	0.5	19
Median	9.0	0.2	0.2	4.1	16	0.1	3150	0.5	0.2	8.8	67	0.5	2750	18	0.4	8.6	0.2	5.5	0.5	30
3rd quartile	35	0.2	0.2	7.4	19	0.1	4400	0.5	0.4	11	96	0.5	3400	25	0.7	18	0.2	9.2	0.5	40
95th percentile	58	0.2	0.2	14	26	0.4	4795	0.8	1.1	14	186	0.5	3795	85	2.2	45	0.2	13	0.5	56
Maximum	120	0.2	0.2	14	27	0.5	5100	0.8	1.1	14	200	0.5	3900	93	2.6	45	0.2	14	0.5	61
Mean	24	0.2	0.2	5.0	17	0.1	2912	0.6	0.4	8.9	78	0.5	2568	27	0.6	14	0.2	6.4	0.5	30
CV (std. dev./mean)	114%	0%	0%	83%	26%	73%	51%	19%	78%	30%	58%	0%	36%	91%	102%	107%	0%	67%	0%	46%
Skewness	2.2			0.9	0.9	2.7	-0.2	1.6	1.6	0.2	1.6		-0.1	1.9	2.5	1.2		0.2		0.7

22 of the 44 vegetable samples collected were fruit vegetables. Concentrations are in µg/g dry wt.

Table 7.4.4.8: Summary Statistics for Metals and Arsenic in Market Garden Leafy Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	31	0.2	0.2	3.1	14	0.3	8300	0.5	0.2	11	92	0.5	3800	23	0.2	3.2	0.2	9.7	0.5	28
10th percentile	66	0.2	0.2	4.4	16	0.3	9280	0.5	0.2	11	119	0.5	4220	27	0.2	5.0	0.2	11	0.5	29
1st quartile	96	0.2	0.3	9.0	18	0.4	9800	0.6	0.3	12	155	0.5	4450	70	0.2	6.0	0.2	12	0.5	30
Median	170	0.2	0.4	19	19	1.6	1050	0.8	0.6	15	255	0.5	5300	150	0.2	8.6	0.2	22	0.5	33
3rd quartile	540	0.2	0.7	45	21	2.0	1200	1.4	0.9	16	580	1	9250	180	0.7	16	0.2	31	1.3	34
95th percentile	1053	0.2	0.9	80	24	2.2	1365	2.9	1.0	17	1143	2.4	1395	213	1.0	17	0.2	39	2.6	38
Maximum	1200	0.2	1.0	92	25	2.3	1400	3.4	1.1	17	1300	3.1	1500	230	1.1	17	0.2	43	2.9	40
Mean	355	0.2	0.5	30	19	1.3	1086	1.2	0.6	14	422	0.9	7100	132	0.4	10	0.2	23	1.0	33
CV (std. dev./mean)	117%	0%	59%	102%	17%	65%	17%	88%	56%	16%	101%	96%	58%	56%	82%	53%	0%	53%	91%	11%
Skewness	1.6		0.9	1.5	0.6	-0.3	0.6	2.0	0.3	-0.4	1.6	2.6	1.4	-0.6	1.4	0.3		0.5	1.8	1.1

8 of the 44 vegetable samples collected were leafy vegetables. Concentrations are in µg/g dry wt.

In general the concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and zinc in the Commercial Market garden vegetables, Table 7.4.1.1.2, were lower than the concentrations of these elements in the residential garden vegetables, Table 7.4.4.1. The main difference is at the high end of the concentration ranges. There is an overlap of about seventy five percent in the ranges for nickel

and copper between market gardens and residential gardens. Nickel in the market garden samples range from 0.5 to 45 µg/g while the residential vegetable range from 0.5 to 180 µ/g. At the 75th percentile the nickel concentration in residential vegetables is 22 µg/g which is lower than the maximum market garden concentration. Similar patterns are observed in the other elements. The maximum concentration for copper in the market garden vegetables is the same as the 75th percentile concentration in the residential garden samples.

7.4.5 Sudbury Produce Summary

The preliminary sampling of commercial and residential produce done in 2001 shows a pattern of elevated concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in produce with the produce concentrations increasing as the concentration of these elements increase in the soil. While the concentration of these elements are relatively low in the commercial market garden vegetables they are still higher than the market garden controls. Approximately 25% of the residential garden vegetable samples are higher than the commercial market garden vegetables for these elements.

Leafy vegetables have higher a concentration of all elements compared to root and fruit vegetables mainly due to the inadequate removal of all soil from these vegetables during normal household washing practices. This is not a concern for the commercial market gardens sampled in this study as the concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in their soil are low and the impact on vegetation is much less.

Generally, metals and arsenic concentrations in the commercial and wild blueberries were relatively low. However, concentrations of nickel in the commercial berry farm produce and concentrations of nickel and copper in the wild blueberry samples were elevated above the control samples.

The concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in residential garden soils in the communities sampled are elevated but in general they are lower than the highest concentrations found in the adjacent yards. The highest garden soil concentrations were found in Falconbridge followed by Copper Cliff, Coniston, Gatchell and then Lively. Market garden soils were lower than all of five community residential garden soils.

This study shows that concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium are elevated in produce grown in the Sudbury area. Therefore a thorough sampling program needs to be carried out in the City of Greater Sudbury by the consultants doing the human health risk assessment. Sufficient samples, both number of samples and size of samples, need to be collected appropriately throughout the growing season from residential gardens, commercial market gardens, berry farms and wild blueberry patches to provide an accurate data base of information for inclusion in the human health risk assessment. The study should address the limitations of this study outlined above. The data collected in this preliminary study should not be used in the human health risk study due to the limitations outlined above.

7.5 Summary

In total, 6,734 soil samples were collected from 770 properties in the City of Greater Sudbury including: 16 commercial agriculture properties, 139 schools/daycares (104/35 respectively), 169 parks and 439 residential properties. Additionally, 245 produce samples were collected from 52 residential gardens and agricultural operations. Three main types of soil samples were collected: Soil, Sand and Gravel, and four types of produce samples: Root Vegetables, Fruit Vegetables, Leafy Vegetables and Berries.
For discussion purposes, sample locations were organized by local community or geographic location within the City of Greater Sudbury. Twenty four local communities or geographic groupings were ranked from highest to lowest using surface soil nickel concentrations. Six major groupings of communities were identified based on similar soil metal and arsenic concentrations. The six community groupings were Outer Sudbury Communities, Inner Sudbury Communities, Sudbury Core, Coniston, Falconbridge and Copper Cliff.

All laboratory analysis was completed at either Lakefield Research Laboratories or at Laboratory Services Branch of the MOE . Soil and produce samples were analyzed for the following elements: aluminum, antimony, arsenic, barium, beryllium, calcium, cadmium, cobalt, copper, chromium, iron, magnesium, manganese, molybdenum, nickel, lead, selenium, strontium, vanadium, and zinc. In addition, approximately 10% of the soil samples were analyzed for pH, electrical conductivity (EC) and total organic content (TOC). Produce samples were also analyzed for sulphur, boron, chlorine, and potassium.

Sample Type

The Soil sample type made up 88% of the soil (soil, sand, gravel) samples collected. This group was further subdivided into Urban Soil (developed, grassed areas, 85% of the total number of soil samples), Urban Garden Soil (residential vegetable gardens, 1% of the soil samples), Agricultural Soil (commercial market garden and berry farms, 1% of the soil samples) and Undisturbed Natural Soil (undeveloped, naturally vegetated areas, 1% of the soil samples).

The Sand sample type comprised 9% of the total number of soil samples collected and was subdivided into Play Sand (8% of the total number of soil samples) and Beach Sand (1 % of the total number of soil samples). The Gravel sample type comprised 4% of the total soil samples collected and was subdivided into Crushed Stone and Playground Gravel, each comprising 2% of the total number of soil samples collected.

Garden produce was sampled at residential properties and commercial operations. Residential gardens were sampled in Coniston, Falconbridge, Copper Cliff, Gatchell and Lively. Commercial operations sampled included commercial berry farms, wild blueberry patches and market garden produce growers. The Root Vegetable sample type comprised 24%, the Fruit Vegetable sample type 39%, Leafy Vegetable sample type 19% and the Berries sample type 18%, of the total number of produce samples collected.

Comparison to MOE Criteria

Soil results were compared to the MOE Table F and A criteria as referenced in the Ministry document *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997). The Table F guidelines represent background soil concentrations obtained from a MOE province-wide parkland sampling program. The Table A soil guidelines are effects-based and were derived to protect both human health and the natural environment.

Overall, only nickel, copper, cobalt, arsenic, lead and selenium soil concentrations exceeded Table A in the City of Greater Sudbury. Concentrations of at least some of these elements were elevated above Table A in all community groupings, in all sample types, at all depths and in all land uses. The six elements noted above plus cadmium, chromium, iron, zinc, antimony, molybdenum, barium and vanadium also exceeded Table F in the City of Greater Sudbury. The number of Table A and F exceedances were highest in Falconbridge and Copper Cliff and decreased with increased distance from these communities. Ninety-nine percent of the soil, sand and gravel pH results were within the pH range prescribed in Table A.

Urban Soil

Generally in urban soil, metal and arsenic concentrations were higher in residential properties compared to park and school properties, at all depths. With one exception, this pattern was observed in Copper Cliff, Falconbridge, Coniston, the Sudbury Core and to a lesser extent, the Inner Sudbury Communities. In the Outer Sudbury Communities, concentrations were similar between all three land uses. The only exception was in Copper Cliff where concentrations were similar between residential and park properties at surface. Concentrations in all three land uses were highest in Falconbridge or Copper Cliff and decreased with distance from these communities. It should be noted that there were only a small number of school and park properties present within Coniston, Falconbridge and Copper Cliff and only a small number of residential properties sampled within the Outer Sudbury Communities. Comparisons, therefore, between land uses in these community groupings were limited.

Generally, metal and arsenic concentrations in urban soil were highest, at all depths, in Falconbridge or Copper Cliff. Copper, lead, selenium, zinc and barium concentrations were highest in Copper Cliff while cobalt, arsenic, cadmium, iron and chromium concentrations were highest in Falconbridge. Only nickel concentrations generally remained similar between these two communities. Elevated concentrations of cobalt, lead and zinc were also present in the Sudbury Core and / or Coniston. Urban soil metals and arsenic concentrations, at all depths, generally decreased towards the Outer Sudbury Communities Refer to Figures 7.5.1 through 7.5.4. Note that OC refers to Outer Communities, IC Inner Communities, SC Sudbury Core, CO Coniston, FA Falconbridge and CC Copper Cliff.

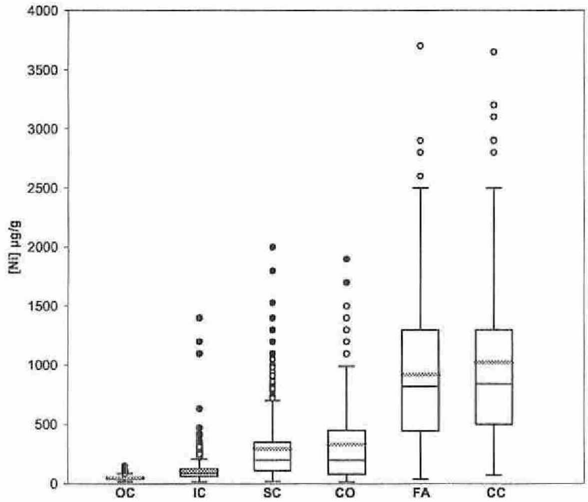

Figure 7.5.1 Nickel, 0 to 5 cm, in Urban Soil, by Communities

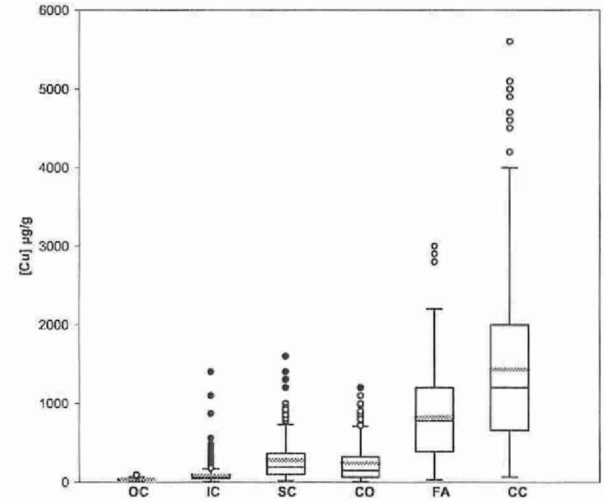

Figure 7.5.2: Copper, 0 to 5 cm, in Urban Soil, by Communities

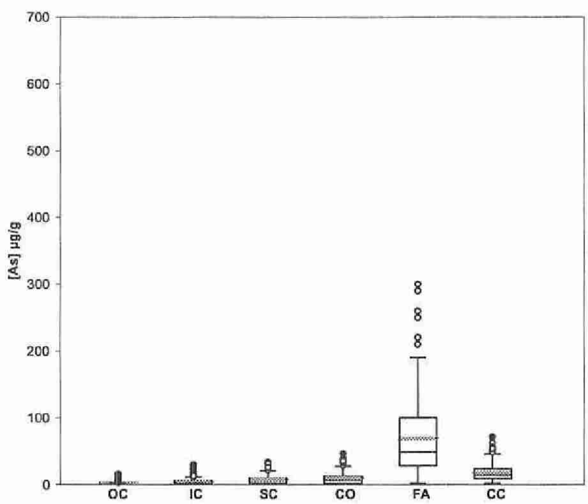

Figure 7.5.3: Arsenic, 0 to 5 cm, in Urban Soil, by Communities

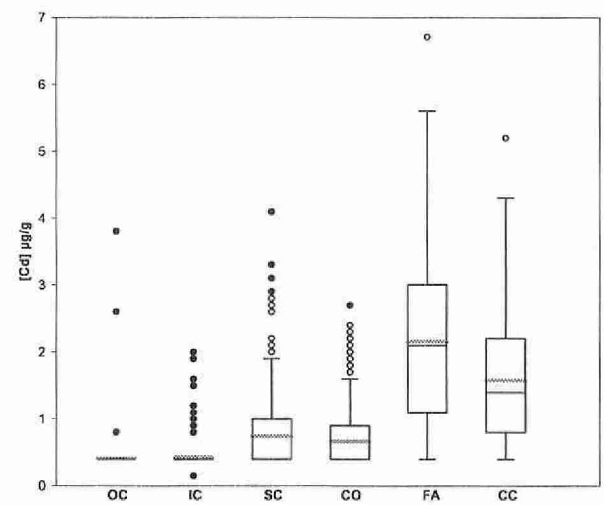

Figure 7.5.4: Cadmium, 0 to 5 cm, in Urban Soil, by Communities

With aerial deposition of metals and arsenic onto soil there should be a pattern of decreasing concentration with increasing soil depth. In urban soil, nickel, copper and lead showed strong trends of aerial deposition from surface in all community groupings but this trend weakened slightly with distance from Copper Cliff and Falconbridge. Aerial deposition trends for cobalt, arsenic, cadmium, selenium, chromium, iron and zinc were weak in the Outer and Inner Sudbury Communities, however, became stronger closer to Falconbridge and Copper Cliff. The percentage of sample locations that showed a trend of aerial deposition varied between community groupings from approximately fifty percent in the Outer Sudbury Communities, Coniston and Falconbridge to 62% in Copper Cliff and between 70 to 80% in the Sudbury Core and the Inner Sudbury Communities. In Falconbridge, only a small percentage of sample locations exhibited this trend for arsenic while 62% and 85% of sample locations exhibited this trend for chromium and cadmium, respectively. In Copper Cliff, 80% of sample locations exhibited this trend for selenium while arsenic did not show this trend at all. These differences between elements may be attributed to numerous factors including element form, element mobility, smelter process changes and differing chemical

composition of the ore over time. The high percentage of elevated cadmium concentrations in Falconbridge and selenium concentrations in Copper Cliff, at surface, may be the result of a recent change in process or source of ore.

Depending on the community grouping, in the remaining 20 to 50% of the sample locations the maximum element concentrations were present below surface in urban soil. Elevated concentrations, at these sample locations, may still be attributed to aerial deposition, however, the aerial deposition may have been buried by landscaping practices at individual properties over time. Similar to aerial deposition from surface, trends of buried contamination were stronger closer to Falconbridge and Copper Cliff. More than half of the sample locations in the Outer Sudbury Communities, Coniston and Falconbridge showed evidence of buried contamination while smaller percentages of sample locations showed this trend in the Inner Sudbury Communities, the Sudbury Core or Copper Cliff. For arsenic in Falconbridge, 80% of the sample locations showed evidence of buried contamination. The high concentrations of arsenic below the surface in Falconbridge may be the result of high element mobility, differences in soil type, and/or higher historic arsenic emissions. In addition to the effect of landscaping practices in Coniston, a majority of sample locations may show evidence of buried contamination due to the absence of an ongoing emissions source. The smelter in Coniston ceased operation in 1972 while the smelters are still active in Falconbridge and Copper Cliff.

In urban soil, statistical correlations between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium were strongest and most numerous in Coniston, Falconbridge and Copper Cliff. The strength and number of these correlations decreased in all directions from the smelter communities. Generally, the strength and number of these correlations, with the exception of Falconbridge, decreased with depth. In the Outer Sudbury Communities, nickel and copper concentrations only correlated strongly with each other while in Coniston, Falconbridge and Copper Cliff, correlations were strong and numerous between the ten to eleven elements listed above. In contrast, Ontario background concentrations of nickel, cobalt and copper generally correlate with elements such as aluminum, barium, chromium, iron and vanadium. Since, nickel and copper concentrations were not strongly correlated with aluminum and vanadium in any of the community groupings and the overall strength and number of the correlations increased with proximity to the smelter operations, nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium appear to be elevated due to emissions from the mining and smelting operations.

Aluminum, barium, iron, manganese, and vanadium appeared to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. In all of the community groupings, except Falconbridge, correlations of naturally occurring elements increased in strength and number with depth indicating the presence of less disturbed soil. In Falconbridge, correlations of the naturally occurring elements remained moderate but relatively constant with depth. These correlations, along with the high element concentrations and large number of Table A and F exceedences, indicated that the soil at depth was still relatively disturbed in Falconbridge. Based on this evidence, urban soil sampling in Falconbridge did not fully delineate the vertical extent of elevated concentrations related to smelter emissions.

Figures 7.5.5 and 7.5.6 show the distribution of aluminum and vanadium concentrations at surface in all communities. Unlike other elements, the range of concentrations, mean and median for

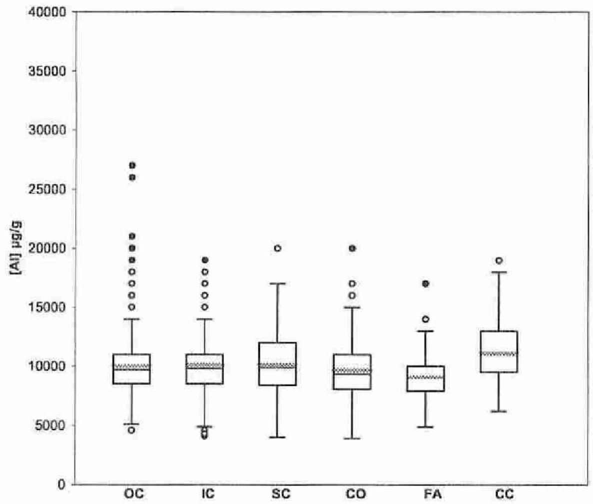

Figure 7.5.5: Aluminum, 0 to 5 cm, in Urban Soil, by Communities

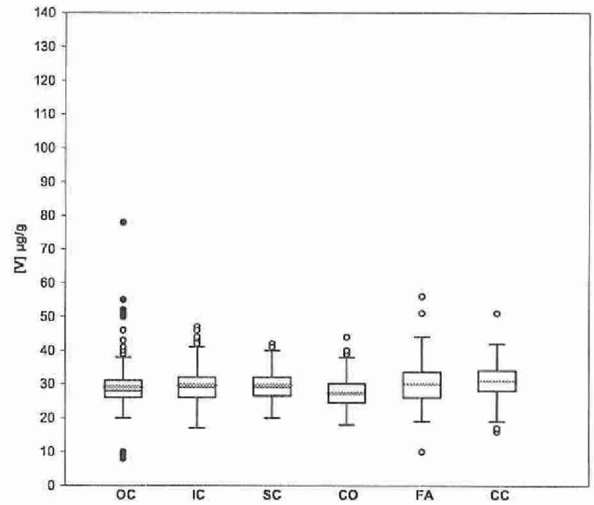

Figure 7.5.6: Vanadium, 0 to 5 cm, in Urban Soil, by Communities

aluminum and vanadium tended to be similar between community groupings. These concentration distributions further indicate that these elements do not appear to be associated with smelter emissions and are likely indicators of the natural chemistry of the soil in the City of Greater Sudbury. Refer to Section 10.3.5 for a complete set of box and whisker graphs comparing element concentrations between community groupings in urban soil.

Sand and Gravel

Generally, the concentrations of metals and arsenic in play and beach sand were quite low. Nickel and copper were the only elements that showed a consistent pattern of elevation in the sand sample type. Both nickel and copper were above Table F in many sand samples, however, only nickel concentrations exceeded Table A and in only a small number of samples. Nickel and copper concentrations in all sand samples were below 1000 µg/g. Arsenic was the only other element in the sand samples that exceeded Table A. Only one play sand sample in Falconbridge exceeded Table A, although three other play sand samples in Falconbridge had elevated arsenic concentrations. Arsenic concentrations in all of these play sand samples were below the adjacent soil concentrations.

Generally, the concentrations of metals and arsenic in the gravel sample type (fine particles only) were quite low. Only nickel and copper exceeded Table A for the gravel sample type. The concentrations of metals and arsenic in the playground gravel samples were essentially the same as the park, school and daycare 0 - 5 cm soil samples. Park, school and daycare 0 - 5 cm soil samples were higher than the playground gravel samples at high concentrations only because there were no gravel playgrounds in either Copper Cliff or Falconbridge where the highest soil levels were found. The metals and arsenic concentrations of the ballfield crushed stone samples were in between the play sand and playground gravel concentrations.

Overall, for play sand, beach sand, playground gravel and ballfield crushed stone the highest concentrations of nickel and copper were found in Copper Cliff, Coniston, Falconbridge and the Sudbury Core with the next highest concentrations in the Inner Sudbury Communities. The Outer Sudbury Communities had the lowest concentrations. The range of metals and arsenic concentrations in the sand and gravel samples was considerably less than that observed in urban soil. This is likely

the result of sand and gravel being imported for landscaping purposes. Exposure to aerial deposition of metals and arsenic, therefore, was over a shorter period of time compared to adjacent soil.

Undisturbed Natural Soil

Undisturbed natural soil samples were collected from seven sampling locations in the Inner Sudbury Communities and the Sudbury Core. Surface soil concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc were higher in the undisturbed natural soil than in urban soil collected from adjacent sampling locations. These elements, with the exception of zinc, were also higher in the undisturbed natural soil compared to urban soil collected throughout both the Inner Sudbury Communities and the Sudbury Core. At depth, concentrations of these elements in undisturbed natural soil were generally similar to or lower than concentrations in adjacent urban soil or in urban soil collected throughout the Inner Sudbury Communities and the Sudbury Core. The pH in undisturbed natural soil was lower than the pH in adjacent sand and urban soil samples.

In the undisturbed natural soil samples, nickel, copper, cobalt and arsenic concentrations exceeded Table A at surface and / or 5 - 10 cm. No Table A exceedences for any element were noted at 10 - 20 cm. No other elements exceeded Table A at any depth while nine elements exceeded Table F. Nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron showed a strong visual trend of decreasing concentration with depth consistent with aerial deposition. Unlike in the urban soil samples, trends of maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm were not generally observed for the undisturbed natural soil. This may be the result of minimal disturbances occurring at the undisturbed natural soil sample locations resulting in metals and arsenic accumulation at surface or due to the small sample size. Average aluminum, and to a lesser extent chromium and vanadium concentrations, showed a trend of increasing concentration with depth consistent with less disturbed soil at depth. Average zinc concentrations showed no observable change with depth.

Produce

The preliminary sampling of commercial and residential produce done in 2001 shows a pattern of elevated concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in produce in the City of Greater Sudbury. The concentrations in produce increased with increasing concentrations of these elements in the surrounding garden soil. In the commercial market garden produce, the concentrations of these elements were relatively low, but were still higher than the market garden controls. Concentrations of these elements were higher in approximately 25% of the residential garden produce samples compared to the commercial market garden produce samples.

Leafy vegetables had higher concentrations of all elements compared to root and fruit vegetables mainly due to the inadequate removal of all soil from these vegetables during normal household washing practices. This is not an issue for the commercial market gardens sampled in this study as the concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in soil were low and therefore the impact would be expected to be much less.

Generally, metals and arsenic concentrations in the commercial and wild blueberries were relatively low. However, concentrations of nickel in the commercial berry farm produce and concentrations of nickel and copper in the wild blueberry samples were elevated above the control samples.

The concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in residential garden soils in the communities sampled were elevated but in general were lower than the highest concentrations found in the adjacent yards. The highest garden soil concentrations were found in Falconbridge followed by Copper Cliff, Coniston, Gatchell and then Lively. Nickel, copper, cobalt, arsenic, lead and selenium all exceeded Table A in garden soil in at least one community. No Table A exceedances were present in Lively while at minimum nickel and copper exceeded Table A in the rest of the communities. Market garden soils were lower than all of the five community residential garden soils and did not exceed Table A. Only nickel in market garden soil exceeded Table F. Soil at the wild blueberry patches exceeded both Table A and F while soil at the commercial berry farms only exceeded Table F.

8.0

8.0 CONCLUSIONS & RECOMMENDATIONS

Based on a review of historical sampling programs in the Sudbury area, the Ministry determined that additional sampling was warranted with regards to residential and publically- accessible urban green spaces within the City of Greater Sudbury. Soil and produce samples were collected by Ministry representatives during the period of July to November 2001 throughout the City of Greater Sudbury.

The scope of the soil study was not to exhaustively characterize the metal and arsenic concentrations at all possible sample locations within each property, rather it was to collect soil data that was representative of each sampled property. The need for further and more intensive sampling will be decided by the consultants and Technical Committee carrying out and overseeing the human health and ecological risk assessments currently underway in the City of Greater Sudbury. Ministry recommendations on potential areas requiring further investigation have been provided in Section 8.2.

8.1 Conclusions

The following conclusions can be drawn in response to the six study objectives listed below.

Objective #1 *To provide a screening level assessment of metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury;*

- This objective was met as sufficient data in the upper 20 centimetres of soil was collected to provide a screening level assessment of the spatial distribution of metals and arsenic concentrations across the City of Greater Sudbury.

In total, 6,734 soil samples were collected from 770 properties in the City of Greater Sudbury in four land uses (residential, schools, parks and agricultural). Three main types of soil samples were collected (soil, sand and gravel) to a maximum depth of 20 centimetres. Representative soil samples were collected from 24 local communities or geographic groupings within the City of Greater Sudbury.

Objective #2 *To determine if localized areas of higher metals and arsenic concentrations exist in the upper 20 centimetres of soil within the City of Greater Sudbury;*

- This objective was also met as substantial differences were noted in metals and arsenic concentrations between geographic areas, soil sample types and land uses.

Nickel, copper, cobalt, arsenic, lead and selenium soil concentrations exceeded the Ministry Table F background guideline and Table A effects based guidelines within the City of Greater Sudbury. In addition, cadmium, chromium, iron, zinc, antimony, molybdenum, barium and vanadium also exceeded Ministry Table F background criteria within the City of Greater Sudbury.

In all soil sample types , generally metal and arsenic concentrations were highest in Falconbridge, Copper Cliff, slightly lower in Coniston and decreased towards the Outer Sudbury Communities.

Concentrations in urban soil were highest in both Falconbridge and Copper Cliff, however, concentrations of copper, lead, selenium, zinc and barium were higher in Copper Cliff than in Falconbridge while the concentrations of cobalt, arsenic, cadmium, iron and chromium were higher in Falconbridge. Only nickel concentrations generally remained similar between Copper Cliff and Falconbridge. Concentrations of these elements were highest in urban soil compared to the other soil, sand or gravel sample types.

Undisturbed natural soil was only collected in the Inner Sudbury Communities and the Sudbury Core. Concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc were higher in the undisturbed natural soil than in adjacent urban soil.

The highest residential garden soil concentrations were found in Falconbridge followed by Copper Cliff, Coniston, Gatchell and then Lively. Concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in residential garden soils were elevated but generally lower than urban soil.

Commercial agricultural operations were generally located in the Outer Sudbury Communities, and therefore had soil concentrations that were lower than urban and residential garden soil.

The highest sand and gravel concentrations were found in Copper Cliff, Coniston, Falconbridge and the Sudbury Core. Generally, the concentrations of metals and arsenic in sand and gravel were lower than other sample types. Nickel and copper were the only elements that showed a consistent pattern of elevation.

Generally, soil metal and arsenic concentrations in all sample types were highest in residential properties compared to park and school properties.

Objective #3 *To determine if metal and arsenic concentrations change with depth in the upper 20 centimetres of soil, in order to identify if element concentrations are related to aerial deposition from smelter emissions in the City of Greater Sudbury;*

- This objective was met, however, additional sampling is required to delineate the trends. A distinct trend of decreasing concentrations with depth for nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc was observed in the upper 20 centimetres of soil throughout the City of Greater Sudbury. Concentrations of these ten elements appear to be elevated due to aerial deposition from local smelting operations.

Samples from multiple depth intervals were collected from urban soil and undisturbed natural soil within the City of Greater Sudbury. Generally, concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc decreased with depth in 50% to 85% of the urban soil sample locations throughout the City of Greater Sudbury. This pattern of decreasing concentrations with depth is consistent with aerial deposition from a continuous long term emission source. The major exception was arsenic in Falconbridge where concentrations in 80% of the sample locations increased with depth. This trend of maximum element concentrations below the surface was present to some extent in all community groupings for most elements. This trend indicates that sampling may not have vertically delineated all element concentrations within the City of Greater Sudbury, especially arsenic concentrations in Falconbridge. The maximum arsenic concentrations in the City of Greater Sudbury were present below the surface in Falconbridge.

In all of the undisturbed natural soil sample locations, concentrations of nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron decreased with depth, consistent with aerial deposition. The trend of maximum element concentrations below surface was not observed for this sample type.

Objective #4 *To determine the strength of relationships between metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury in order to identify if element concentrations are related to smelter emissions;*

- This objective was met. Strong, statistically significant correlations were present between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium in Coniston, Falconbridge and Copper Cliff. The number and strength of these correlations decreased with increased distance from the smelter communities and were strongest at surface. Concentrations of these eleven elements appear to be elevated due to aerial deposition from local smelting operations.

Concentrations and correlations of aluminum and vanadium were generally constant with depth throughout the City of Greater Sudbury. These element concentrations appeared to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. Ontario background concentrations of aluminum and vanadium generally correlate with elements such as nickel, cobalt and copper. Throughout the City of Greater Sudbury, however, nickel and copper concentrations did not correlate with aluminum and vanadium but did correlate with cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium. The overall strength and number of these correlations increased with proximity to the smelter operations and were strongest at surface. The number, strength and spatial distribution of these correlations indicate that concentrations of these eleven elements are elevated due to aerial deposition from local smelting operations.

Objective #5 *To identify metal and arsenic concentrations in produce grown within the City of Greater Sudbury, in order to support exposure estimates for the human health risk assessment;*

- This objective was not met although elevated concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium were observed in produce within the City of Greater Sudbury. The concentrations in produce increased with increasing concentrations of these elements in the adjacent soil.

In total, 245 produce samples were collected from 52 residential gardens, commercial market gardens, berry farms or wild blueberry patches. Four types of produce samples were collected: Root Vegetables, Fruit Vegetables, Leafy Vegetables and Berries.

Concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium were highest in produce from residential gardens. Leafy vegetables in residential gardens had higher concentrations of all elements compared to root and fruit vegetables. Generally, metals and arsenic concentrations in the commercial produce and wild blueberries were relatively low. However, concentrations of nickel in the commercial market garden and berry farm produce and concentrations of nickel and copper in the wild blueberry samples were elevated above the control samples.

This objective was not met due to the deficiencies in the produce sampling program design and laboratory quality control issues.

Objective #6 *To identify additional work that may be appropriate to support the Human Health Risk Assessment (HHRA) and the Environmental Risk Assessment (ERA) based upon this screening level study.*

- This objective has been met. Potential areas requiring further study or investigation are discussed in Section 8.2.

8.2 Data Gaps and Recommendations

As discussed previously, the 2001 sampling program for the City of Greater Sudbury was meant to fill identified knowledge gaps with screening level information only. As a result, intensive characterization of the soil metal and arsenic concentrations was not completed for the study area. Further sampling and / or analysis will be required to support the community based human health and ecological risk assessment currently underway in the City of Greater Sudbury. Ministry recommendations on potential areas requiring further investigation have been provided below.

1. Further soil sampling is required below 20 centimetres to fully delineate the vertical extent of elevated metals and arsenic concentrations within Falconbridge.

2. Bioaccessibility analysis should be completed for metals and arsenic from representative soil samples from different soil types in each community grouping. This analysis should be completed for samples with concentrations at the 10^{th}, 50^{th} and 95^{th} percentile, at all depth intervals.

3. All soil analysis from this study was recorded as total metal concentrations in soil. Prior to analysis, all soil material that passed through the 2 mm sieve was ground to pass through a 355 micron sieve. Soil analysis for human health studies focuses on the fine fraction of the soil material. The fine fraction is defined as all soil material that passes through the 355 micron sieve without grinding. For the purposes of the human health risk assessment, element concentrations in the fine fraction of the soil material should be determined for metals and arsenic on samples with concentrations at the 10^{th}, 50^{th} and 95^{th} percentile in all community groupings.

4. Laboratory soil texture analysis was not completed for any soil samples from this study. Soil texture data was solely based on field observations. Laboratory characterization of soil texture may be useful for bioaccessibility analysis and metals transport modelling during the community based risk assessment and therefore should be completed.

5. TOC, pH and conductivity were only measured for 10% of the soil samples. These parameters, especially pH, should be measured for a large percent of the soil samples to aid in data interpretation. The apparent difference between the pH of undisturbed natural soil and adjacent urban soil should be further investigated.

6. Statistical analysis should be conducted on replicate samples collected from each property within the City of Greater Sudbury to determine within-site and between-site sampling and analytical variability.

7. Soil metal and arsenic concentration profiles varied between elements and geographic locations. Further study to determine accumulation and transport mechanisms responsible for the differences in these profiles is required to properly assess current and potential risk. This study may examine biologically mediated soil mixing, element specific movement (a function of soil pH, redox, moisture content etc) and / or historical changes in smelter process / ore source.

8. A comprehensive garden and commercial produce sampling program should be completed for the purposes of the human health risk assessment. The program should include: multiple sampling events over the year, collection of replicate samples, variation of produce types and varieties (i.e. root, leafy etc.), consistent produce varieties between properties, statistically significant sample size for each community grouping and garden type, proper control sample locations, soil sampling from each produce sampling location (soil analysis should include the same analytical suite as produce samples plus soil type) and analysis of correlations between produce and soil concentrations.

9. Property owners should be informed that better washing of leafy vegetables would be recommended where elevated soil concentrations are found.

10. The results of this study should be compared with previous research (MOE and other) including historical soil and vegetation quality assessments and regional and local soil and geological surveys. This comparison should be completed to fully assess short and long term data trends.

9.0

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13. **MOE.** 1984. Marginal chlorosis of white birch in the Sudbury area 1978-1983: Progress Report No. 1. Sudbury, Canada. 70 pp.

14. **MOE.** 1985. Studies of the terrestrial environment in the Sudbury area, 1970-1982. Sudbury, Ontario.

15. **MOE.** 1990. Studies in the Terrestrial Environment in the Sudbury Area, 1978-1987. Sudbury, Ontario. 149 pp.

16. **MOE.** 1993. Field Investigation Manual Part 1: General Methodology. Phytotoxicology Section, Hazardous Contaminants Branch, Report Number HCB-014-3511-93.

17. **MOE**. 1993b. Gatchell Garden Study, Sudbury, Ontario.

18. **MOE**. 1993c. Ontario Typical Range of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow. Phytotoxicology Section, Standards Development Branch, Report Number HCB-151-3512-93.

19. **MOE.** 1997. Guideline for use at contaminated sites in Ontario. Ontario Ministry of the Environment and Energy. 158 pp.

20. **MOE**. 2000. Standard Operating Procedure for Processing of Soil Samples Prior to Analysis VS002. 5 pp.

21. **MOE.** 2000b. Standard Operating Procedure for Processing of Vegetation Samples Prior to Analysis VS001.

22. **MOE.** 2001. Metals in Soil and Vegetation in the Sudbury Area (Survey 2000 and Additional Historic Data). Ecological Standards and Toxicology Section, Standards Development Branch, Ontario Ministry of the Environment, Toronto, Ontario. Report Number SDB-045-3511-2001

23. **MOE.** 2003. Phytotoxicity Laboratory Incident Report. Ecological Standards and Toxicology Section, Standards Development Branch, Ontario Ministry of the Environment, Toronto, Ontario. Report Number SDB-002-3511-2003.

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10.0

10.0 DISCUSSION APPENDICES

The following descriptions detail the software programs used for data analysis and manipulation in this document.

Community station maps and concentration dot maps were completed using ArcView GIS version 3.2.

Data formatting was completed using Microsoft Excel 97, SR-2 (I), Microsoft Corporation. This version of Microsoft Excel was also used for selected data analysis including:

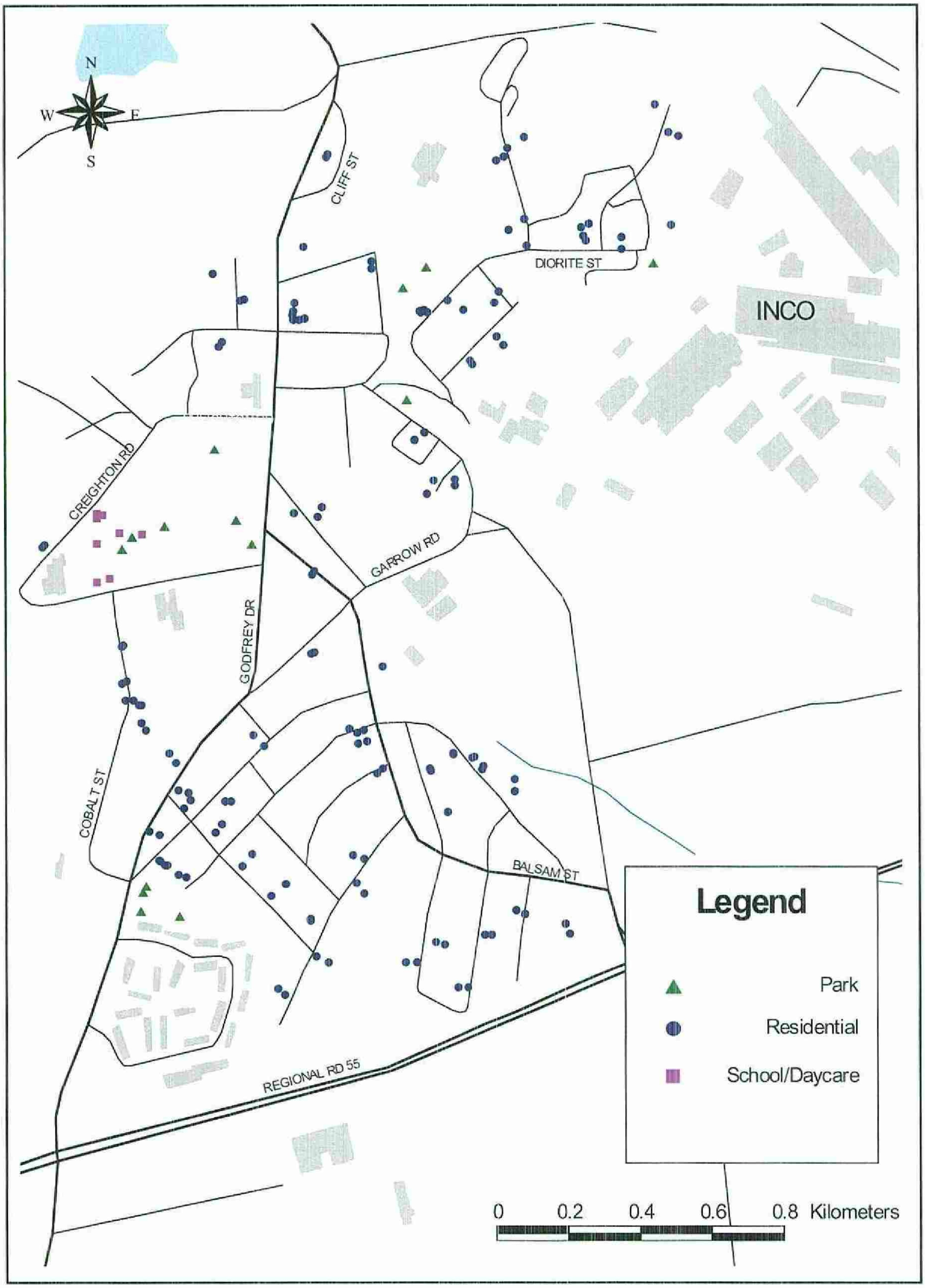
- creation of depth profile graphs and calculation of percent difference between depth intervals;
- creation of scatter plots with linear regression lines, line equations and R^2 values; and
- log transformation of the data for use in scatter plots.

Additional data analysis was completed using XLSTAT version 6.0, Addinsoft, 2002. This version of XLSTAT was used for the following data analysis:

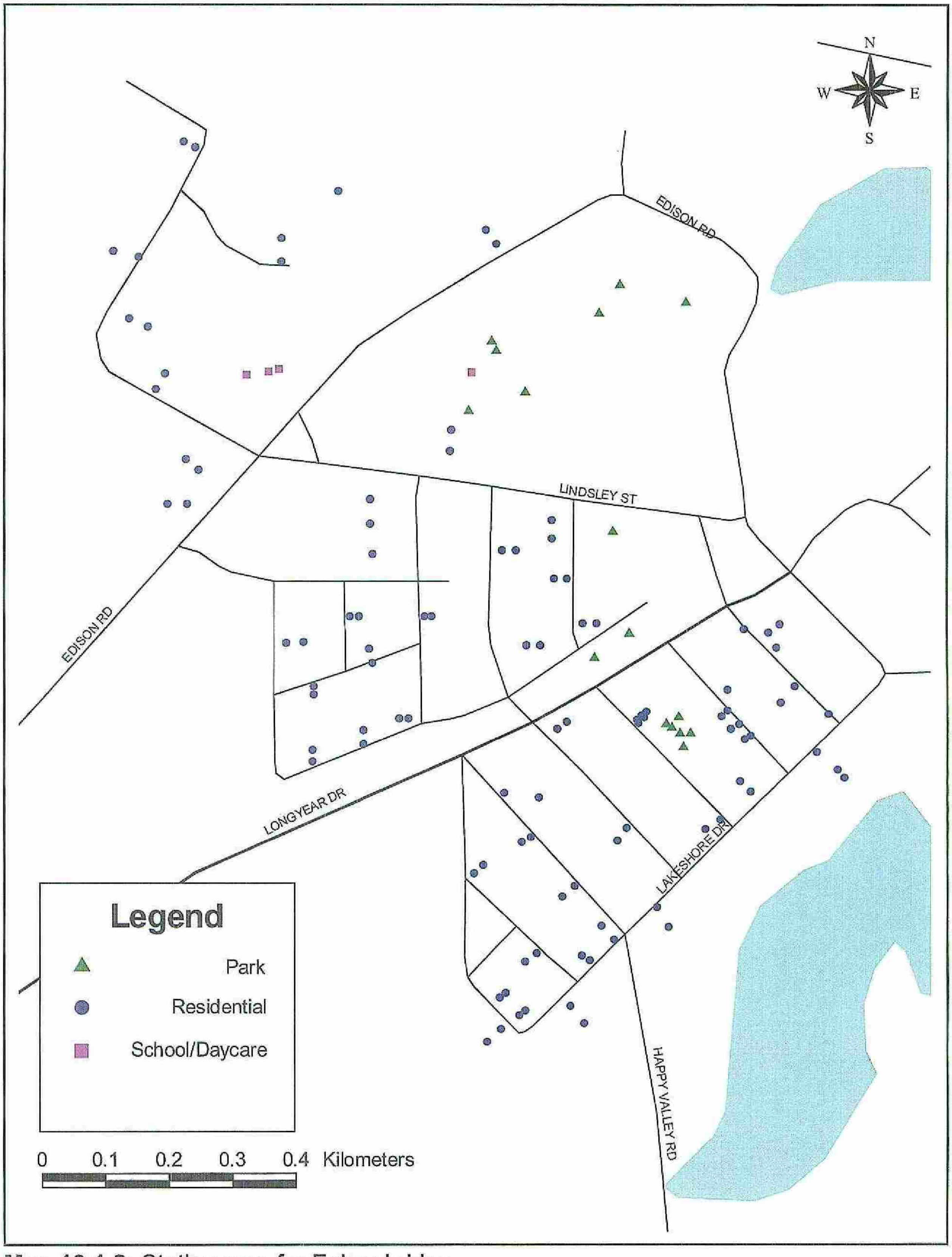
- the generation of descriptive statistics including: minimum, maximum, mean, median, geometric mean, 10^{th} and 95^{th} percentile and quartile concentrations and standard deviation, coefficient of variation, kurtosis, skewness and upper and lower confidence intervals for the mean;
- creation of box and whisker plots; and
- calculation of Pearson's Product Moment Correlation Coefficient R and Spearman's Ranked Correlation R_s.

10.1

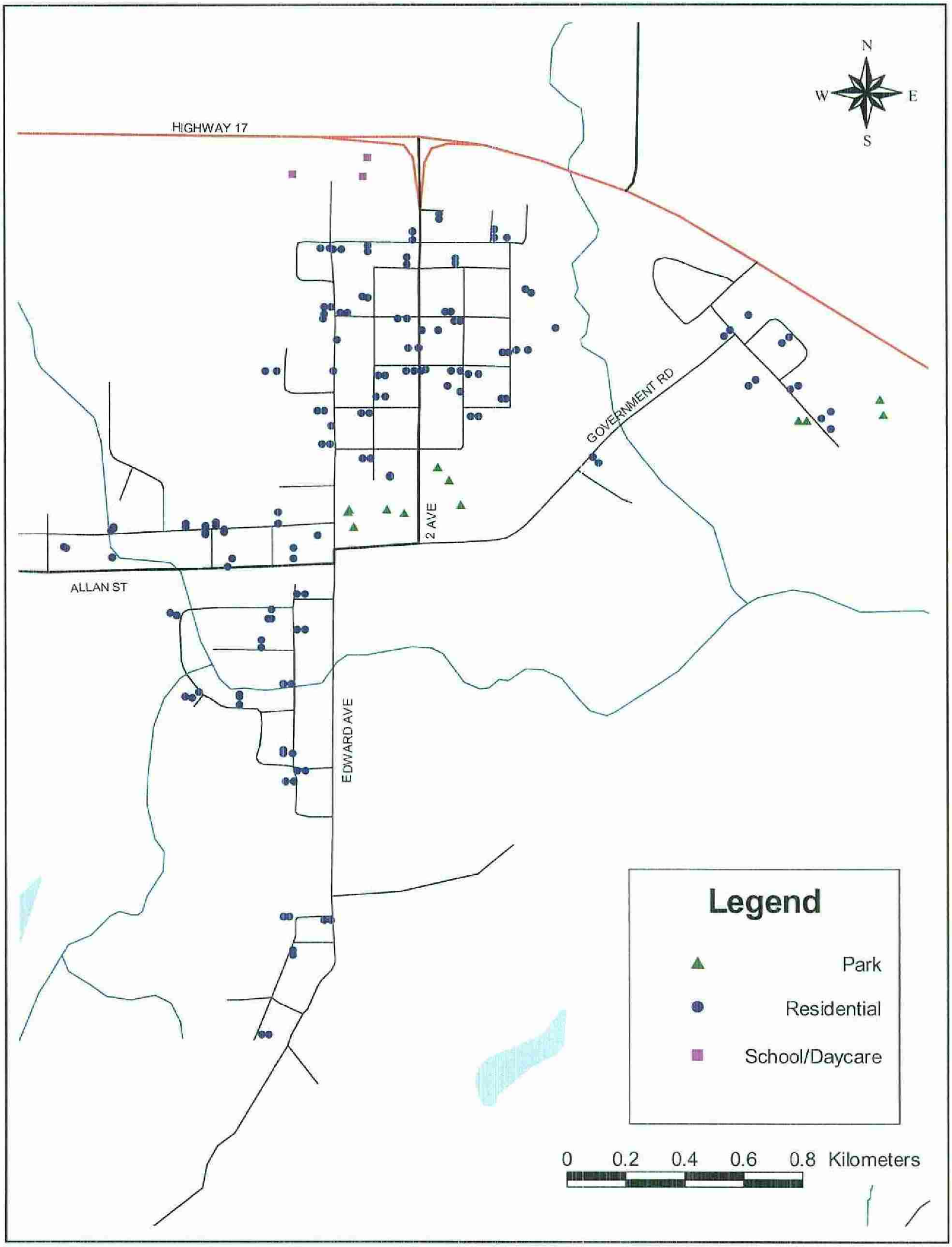
10.1 Soil Sampling Station Maps for the City of Greater Sudbury by Community



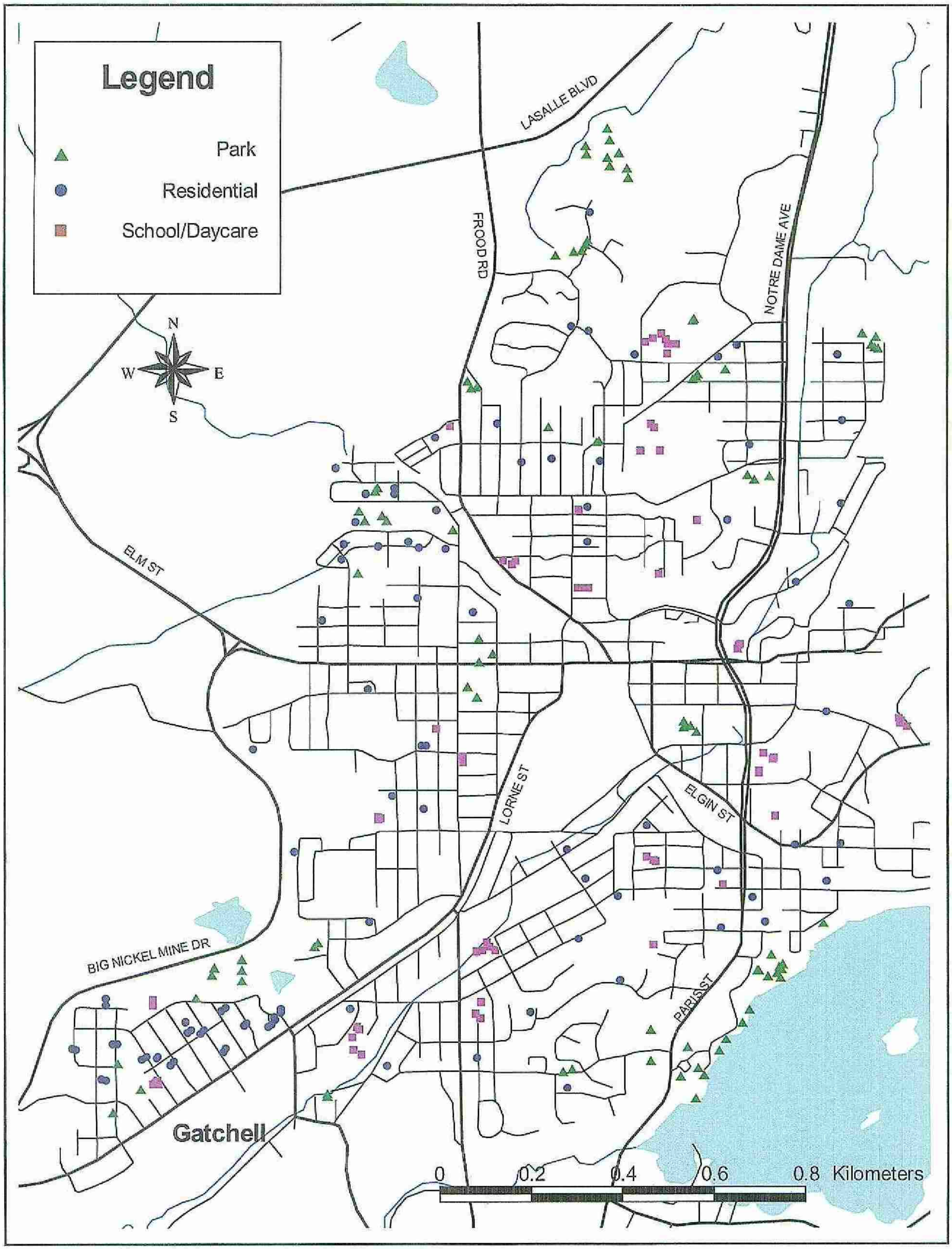
Map 10.1.1: Station map for Copper Cliff



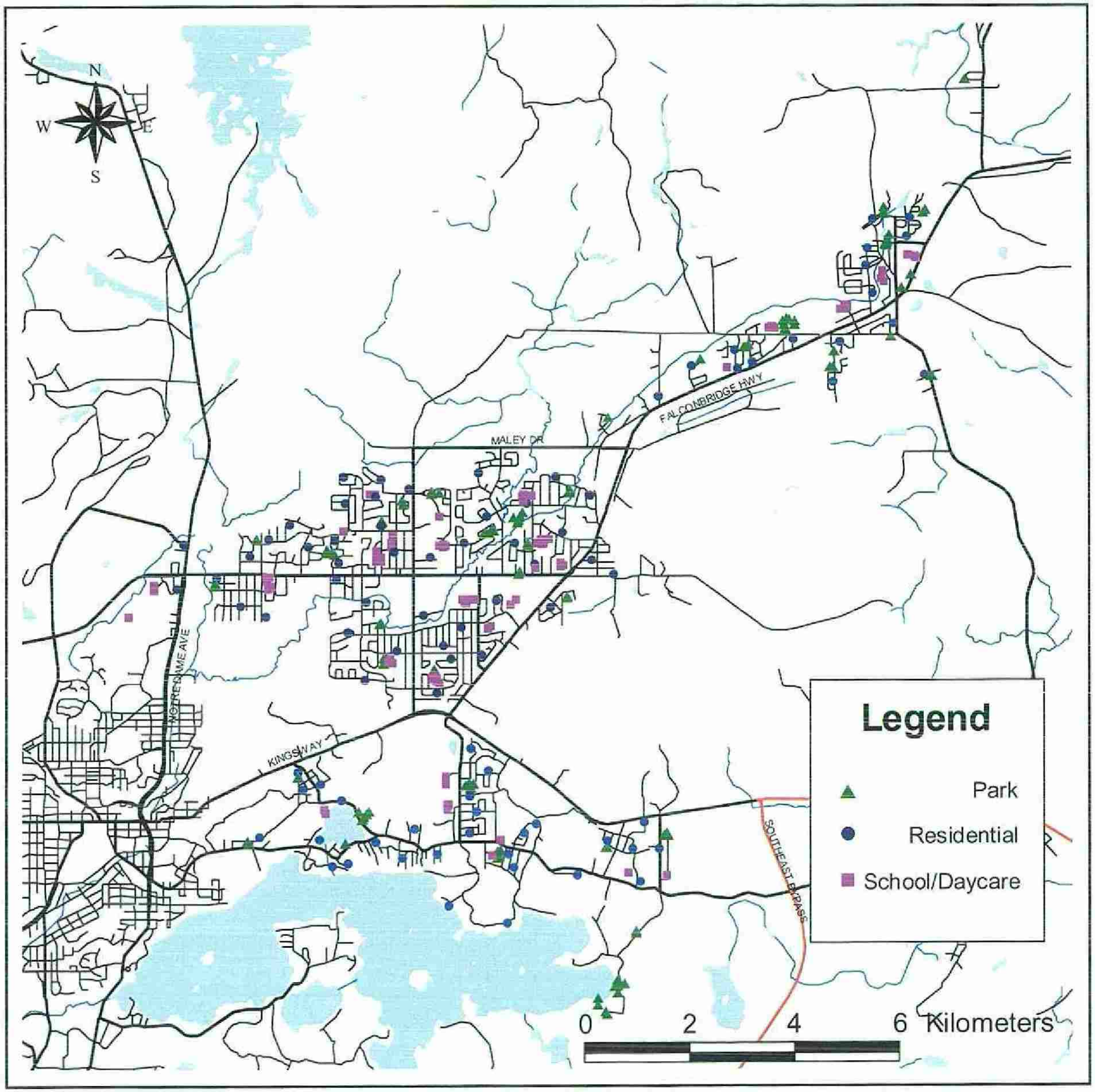
Map 10.1.2: Station map for Falconbridge



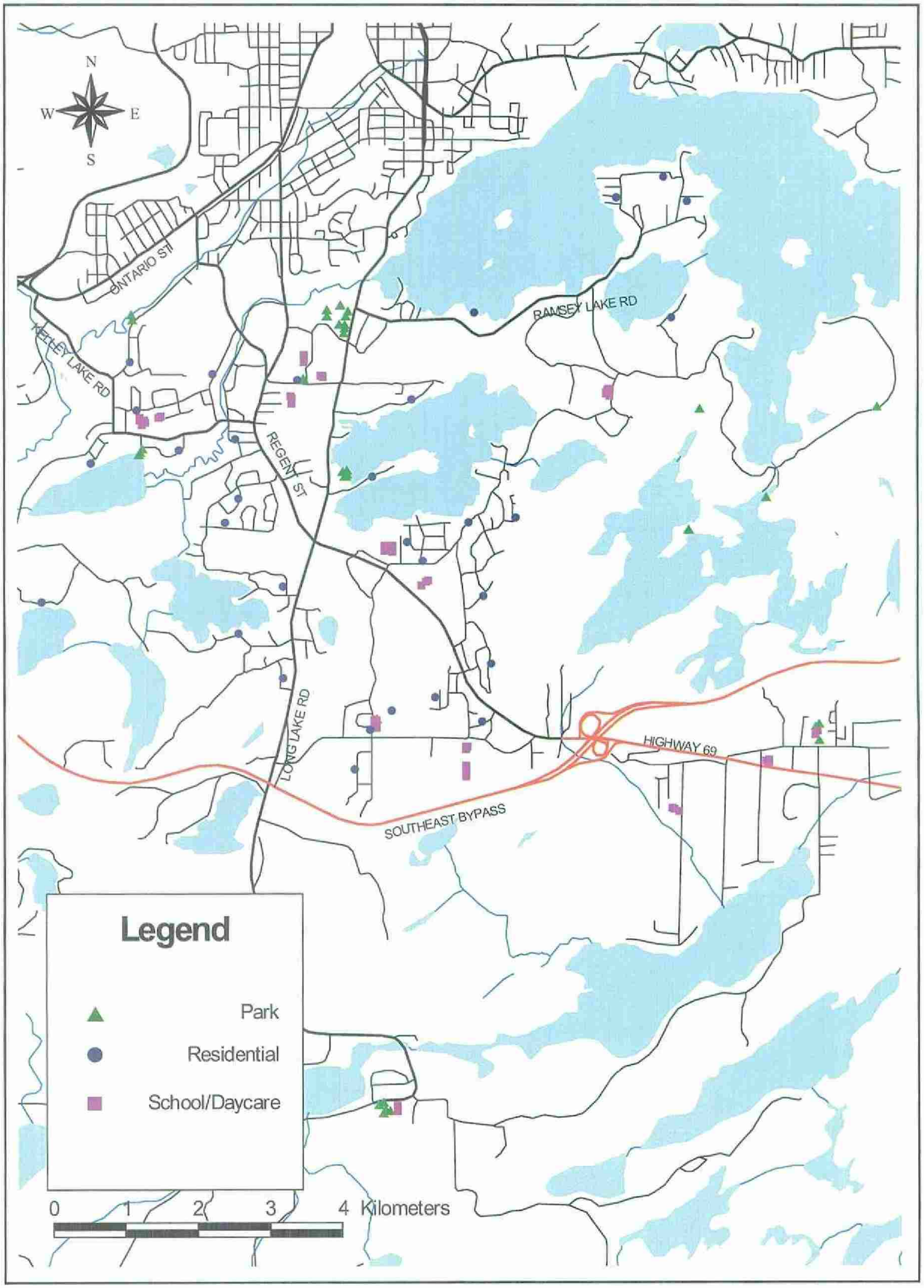
Map 10.1.3: Station map for Coniston



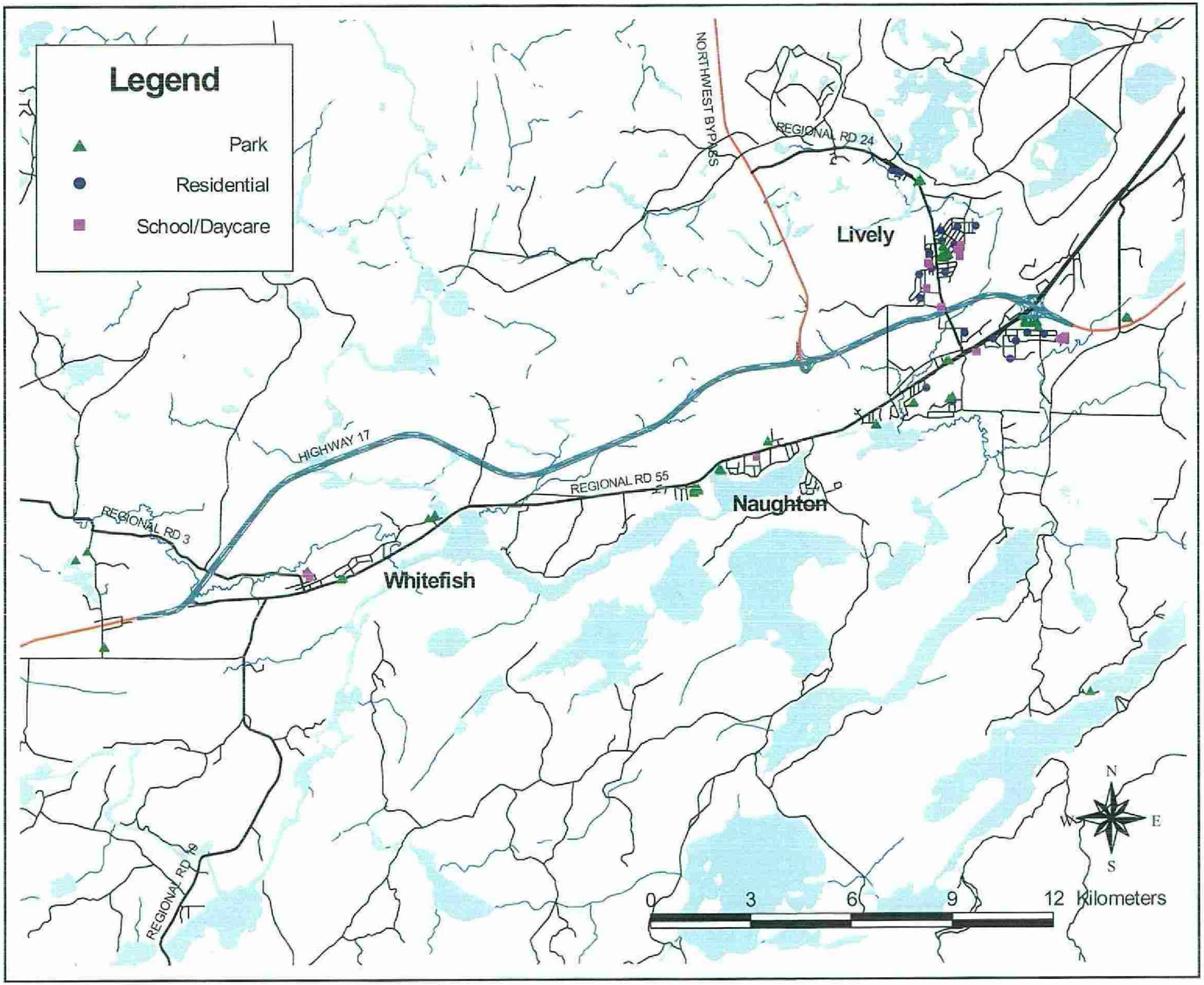
Map 10.1.4: Station map for Sudbury Core



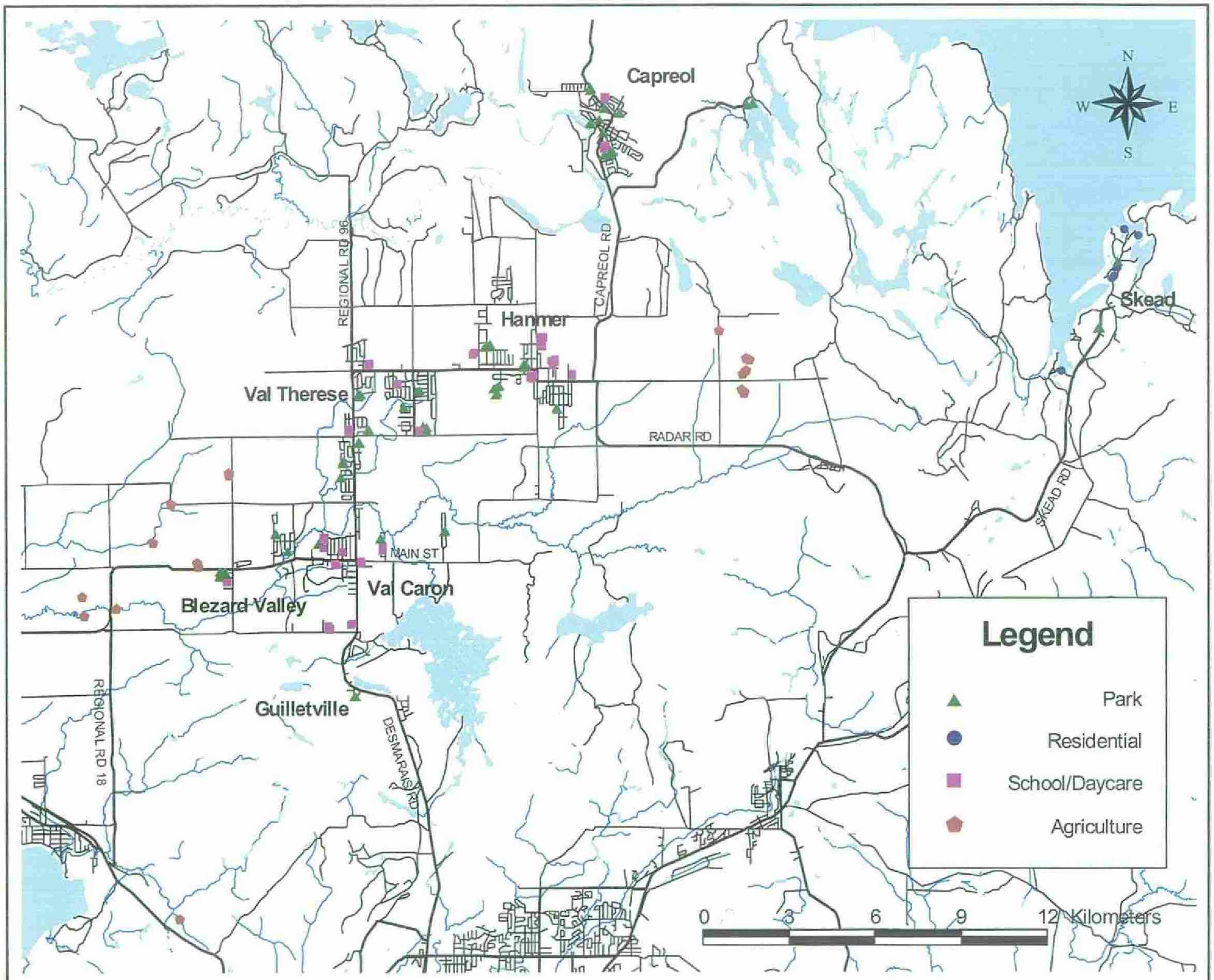
Map 10.1.5: Station map for Sudbury East, Sudbury New and Garson



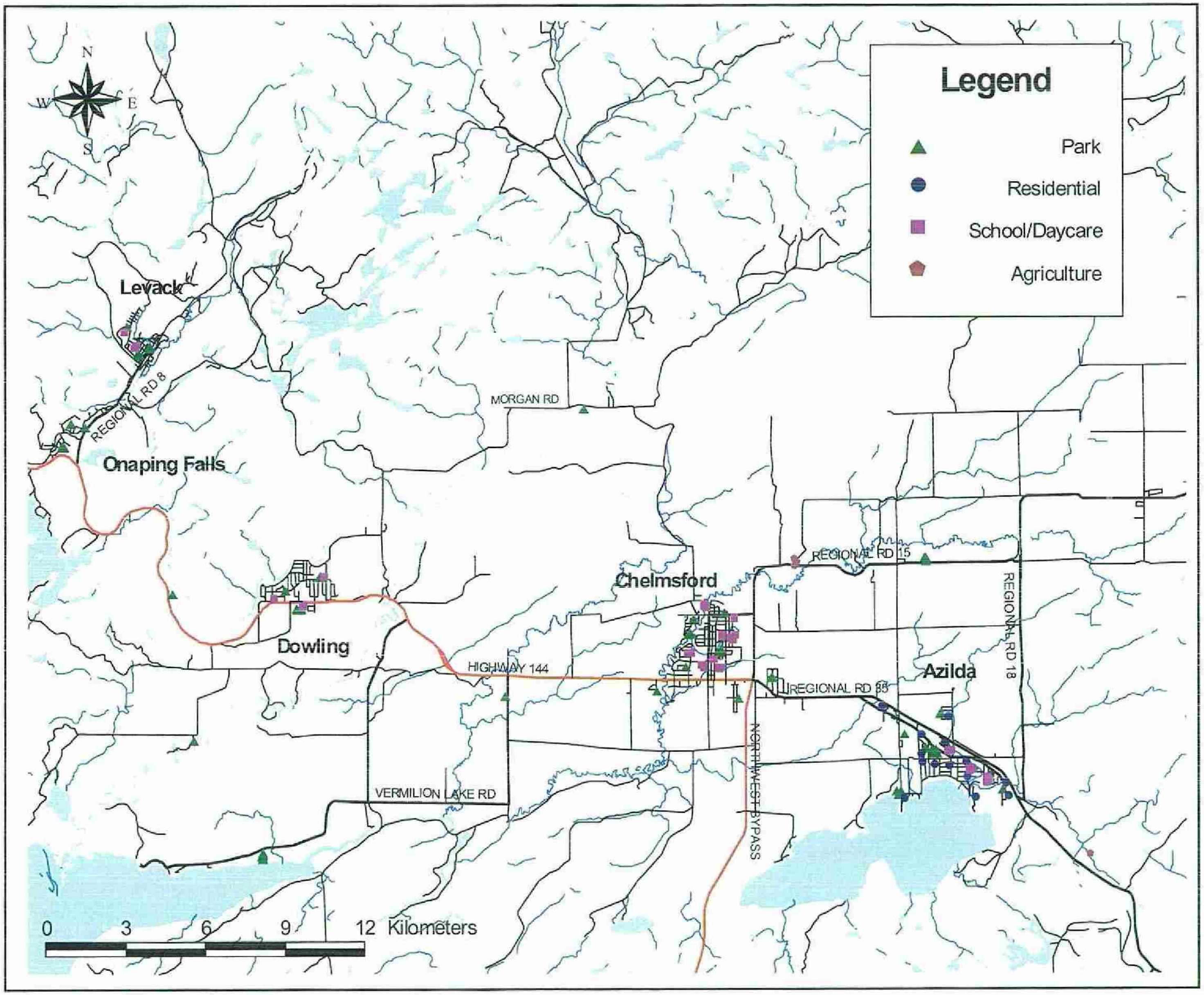
Map 10.1.6: Station map for Sudbury South



Map 10.1.7: Station Map for Sudbury West



Map 10.1.8: Station map for Valley East

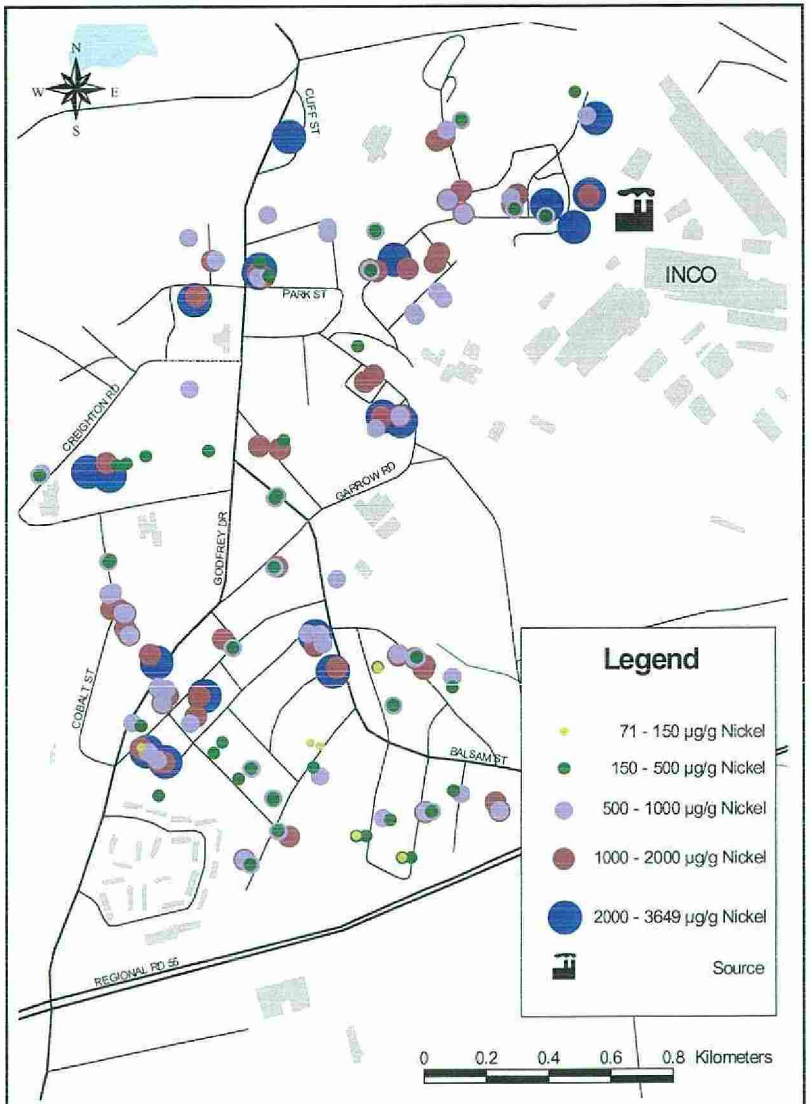


Map 10.1.9: Station map for Valley West

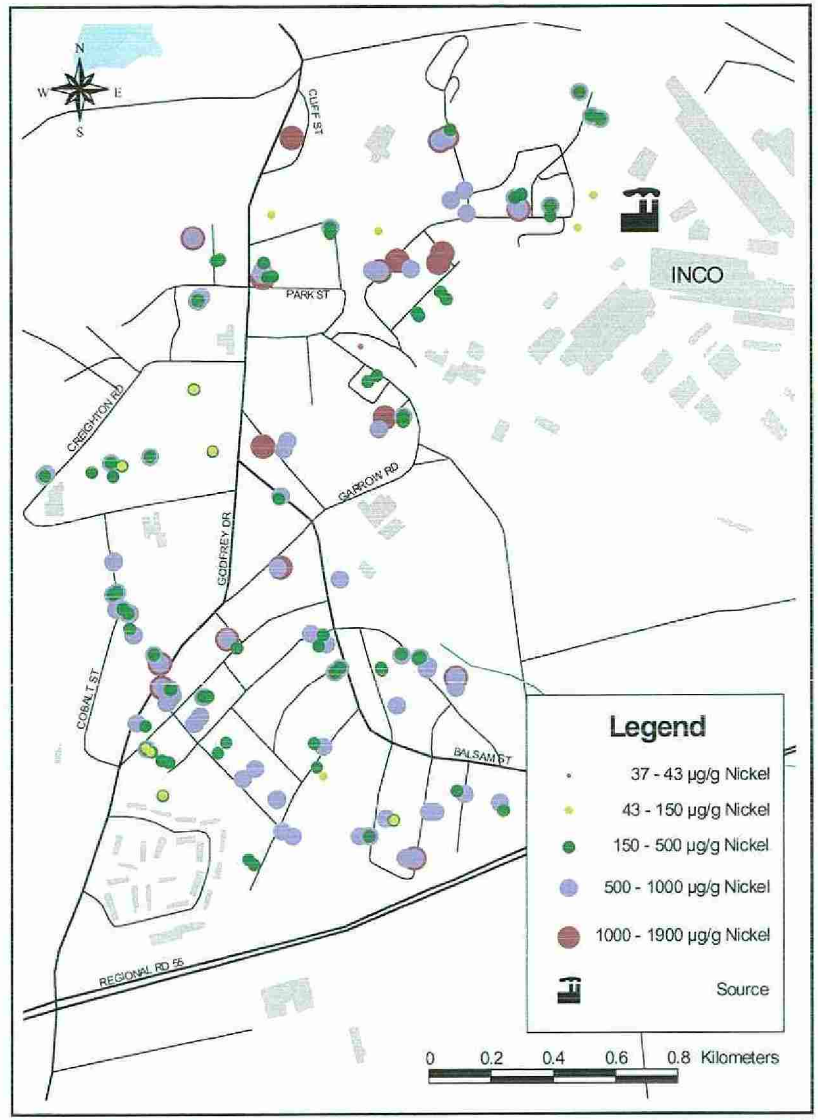
10.2

10.2 Concentration Gradient Maps for Selected Metals and Arsenic in Urban Soils of the City of Greater Sudbury

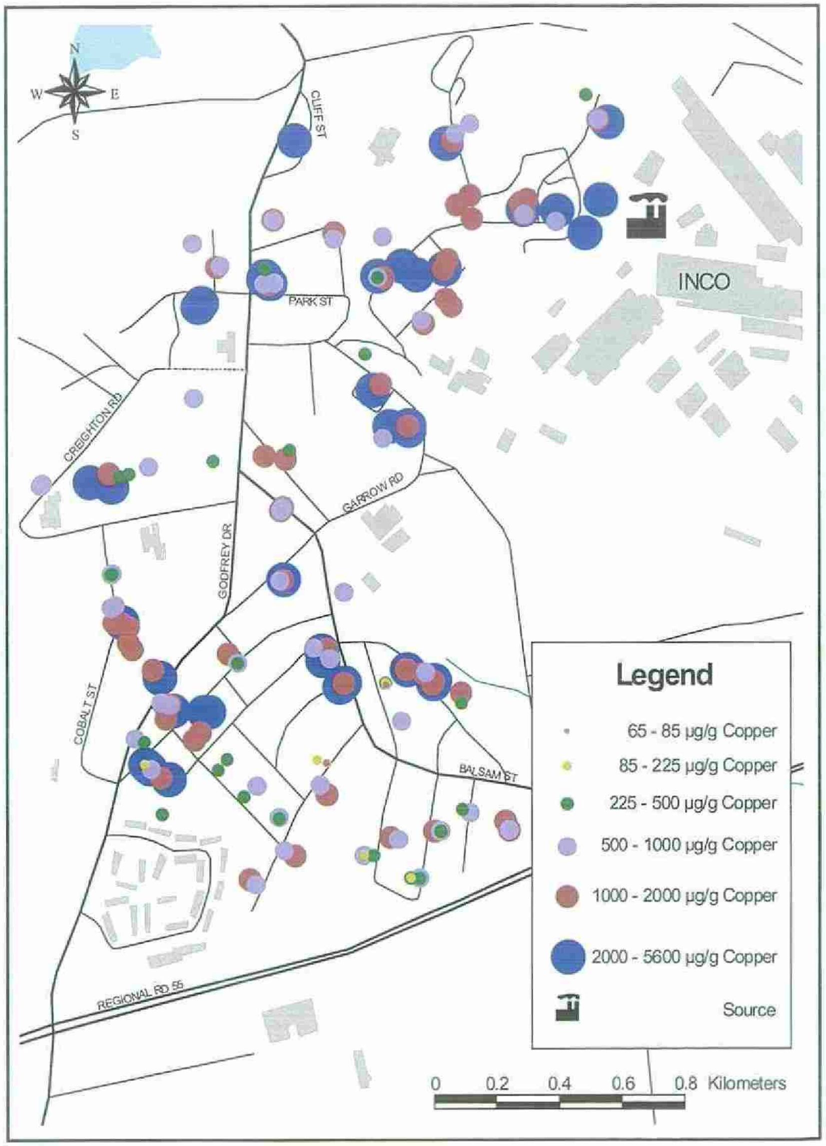
10.2.1 Copper Cliff



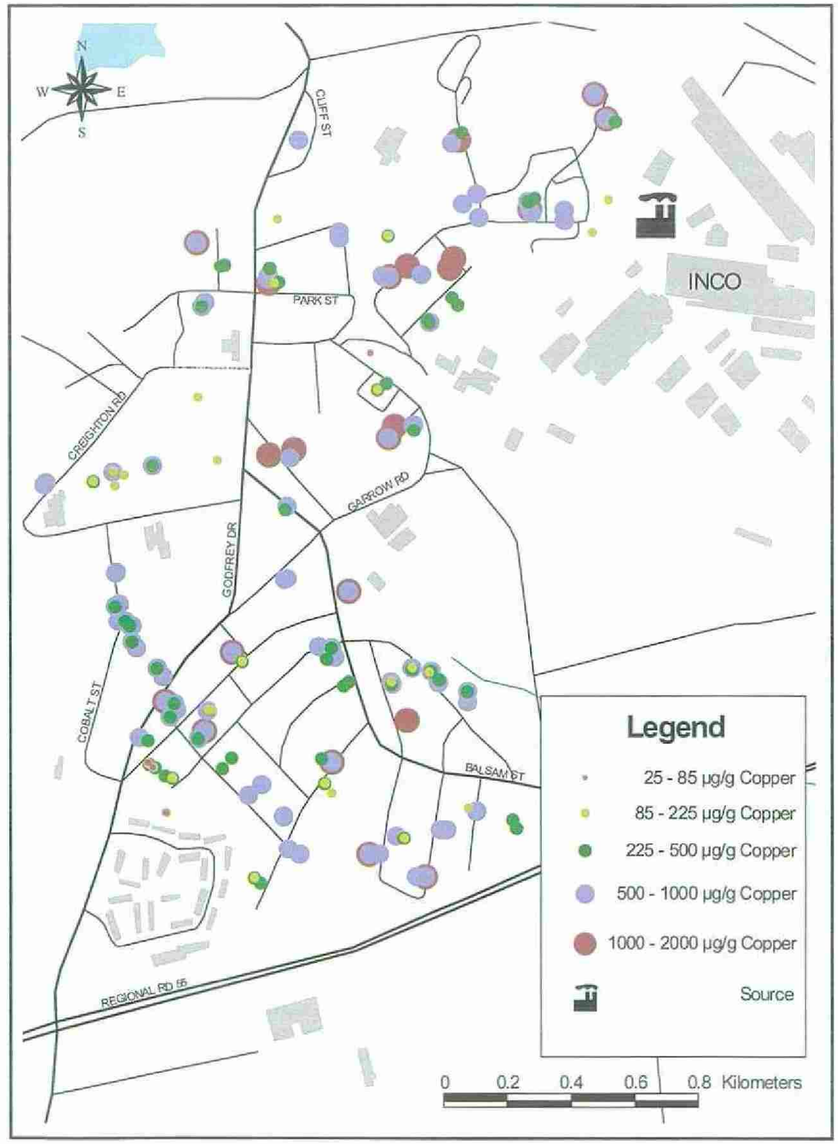
Map 10.2.1.1: Ni concentrations in urban 0 - 5 cm soil in Copper Cliff



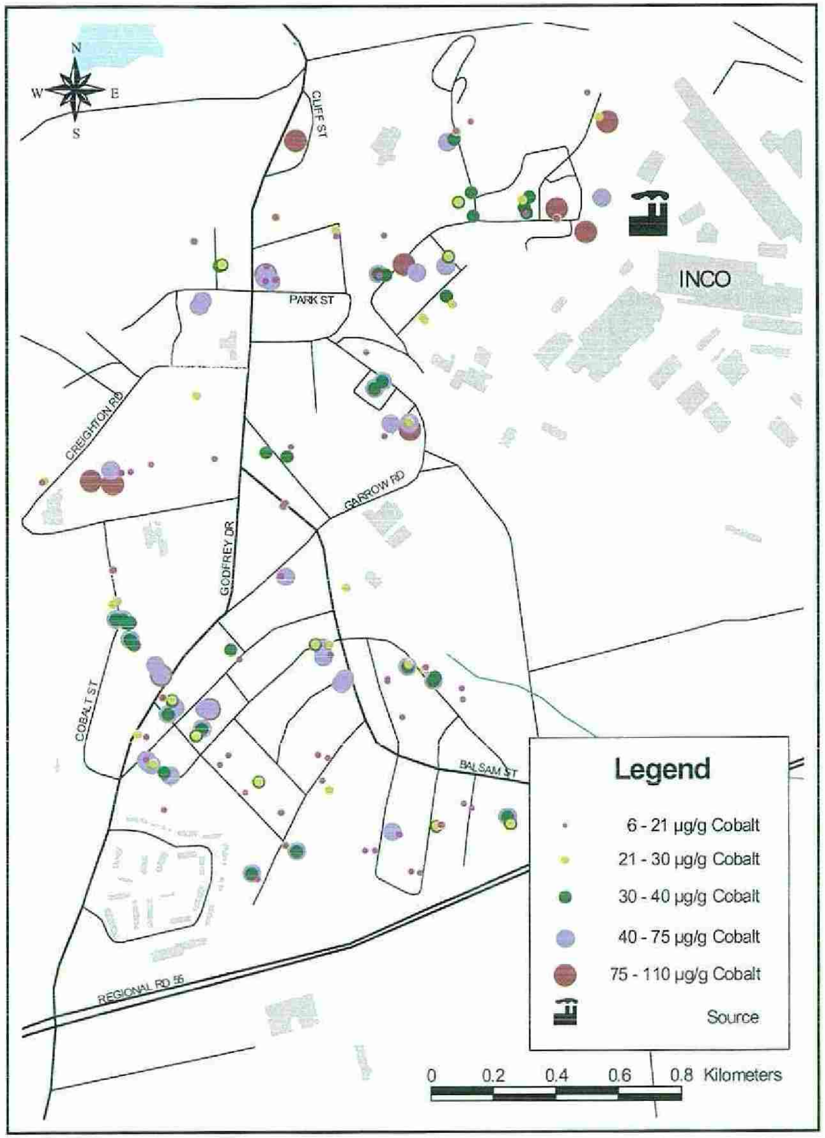
Map 10.2.1.2: Ni concentrations in urban 10 - 20 cm soil in Copper Cliff



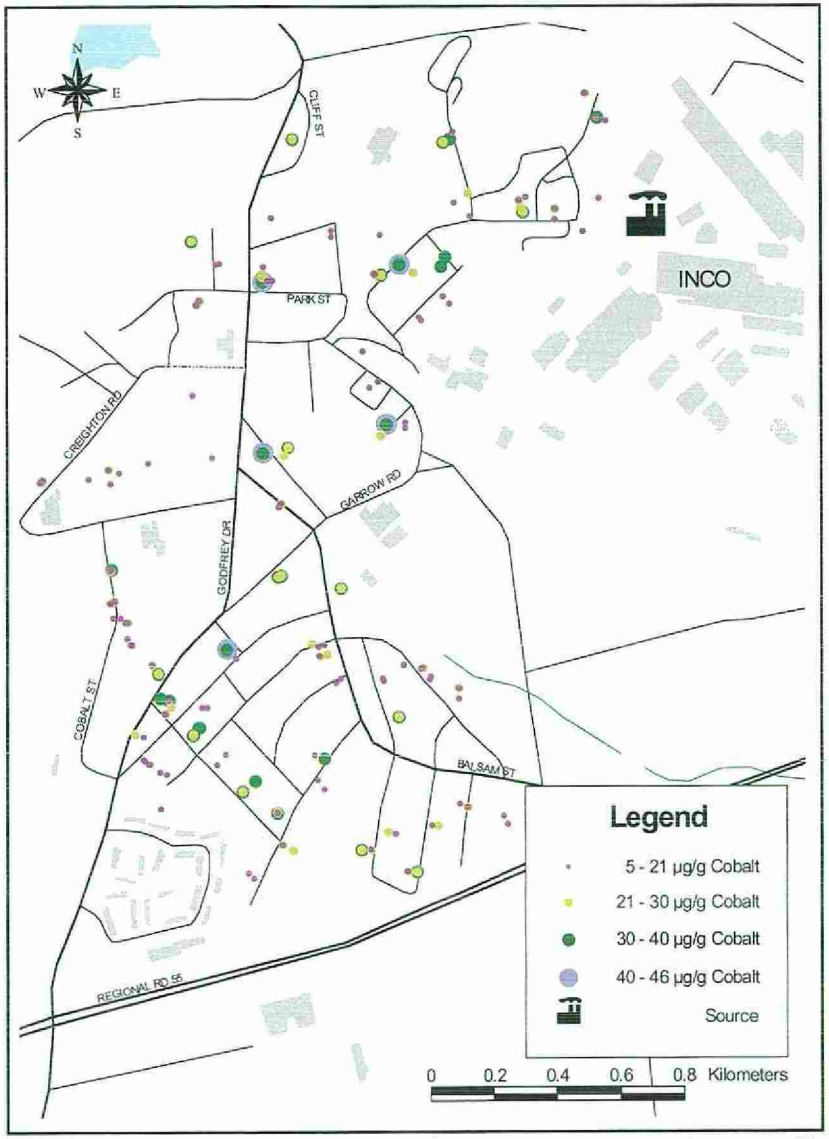
Map 10.2.1.3: Cu concentrations in urban 0 - 5 cm soil in Copper Cliff



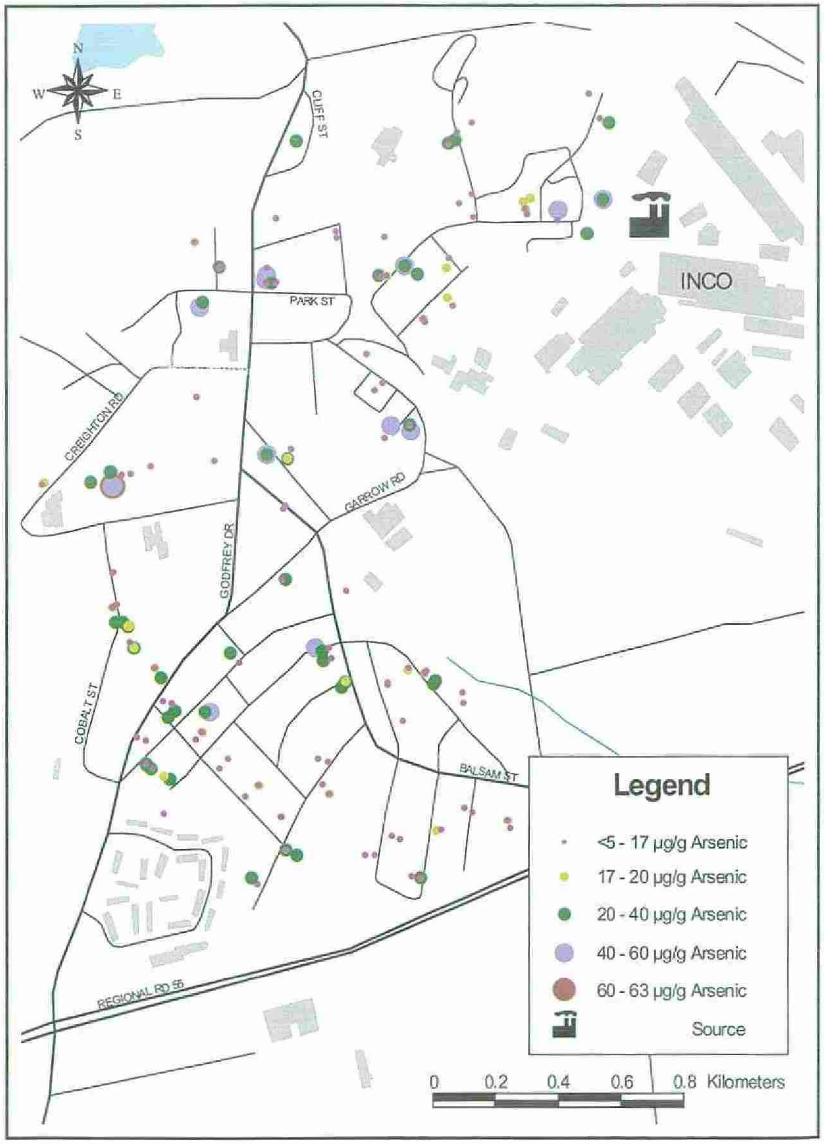
Map 10.2.1.4: Cu concentrations in urban 10 - 20 cm soil in Copper Cliff



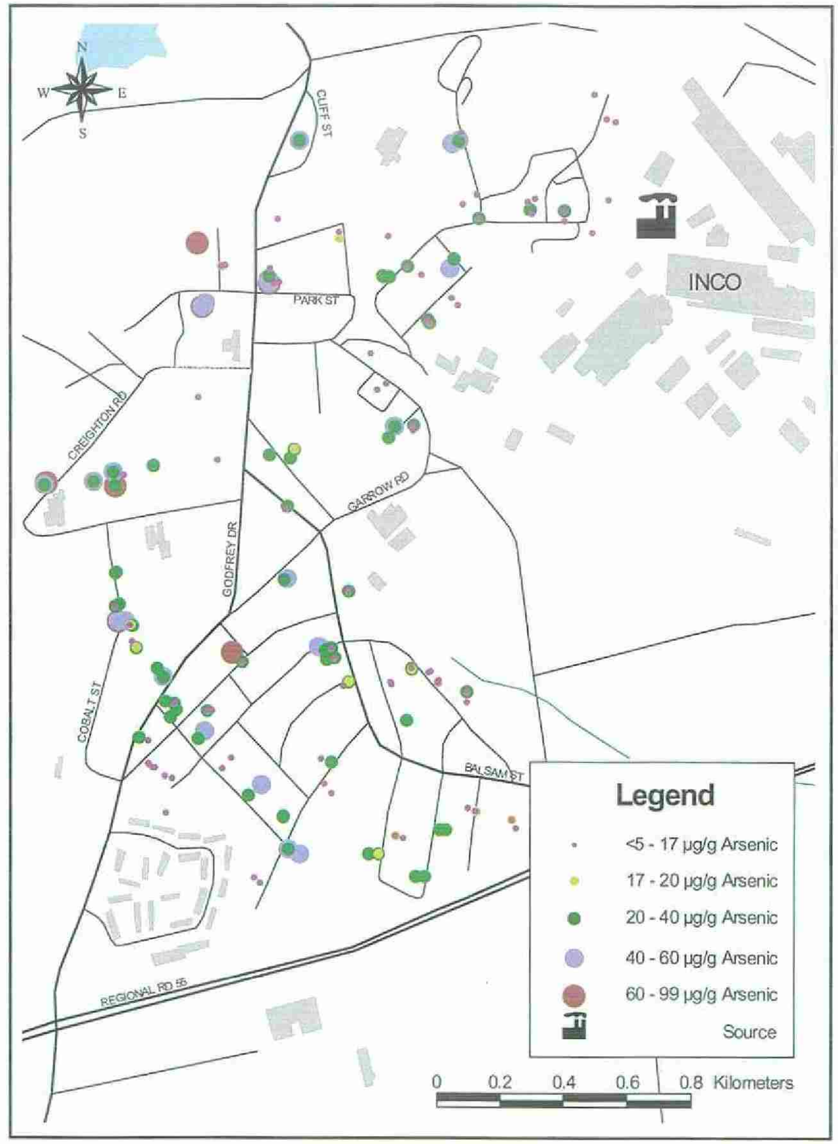
Map 10.2.1.5: Co concentrations in urban 0 - 5 cm soil in Copper Cliff



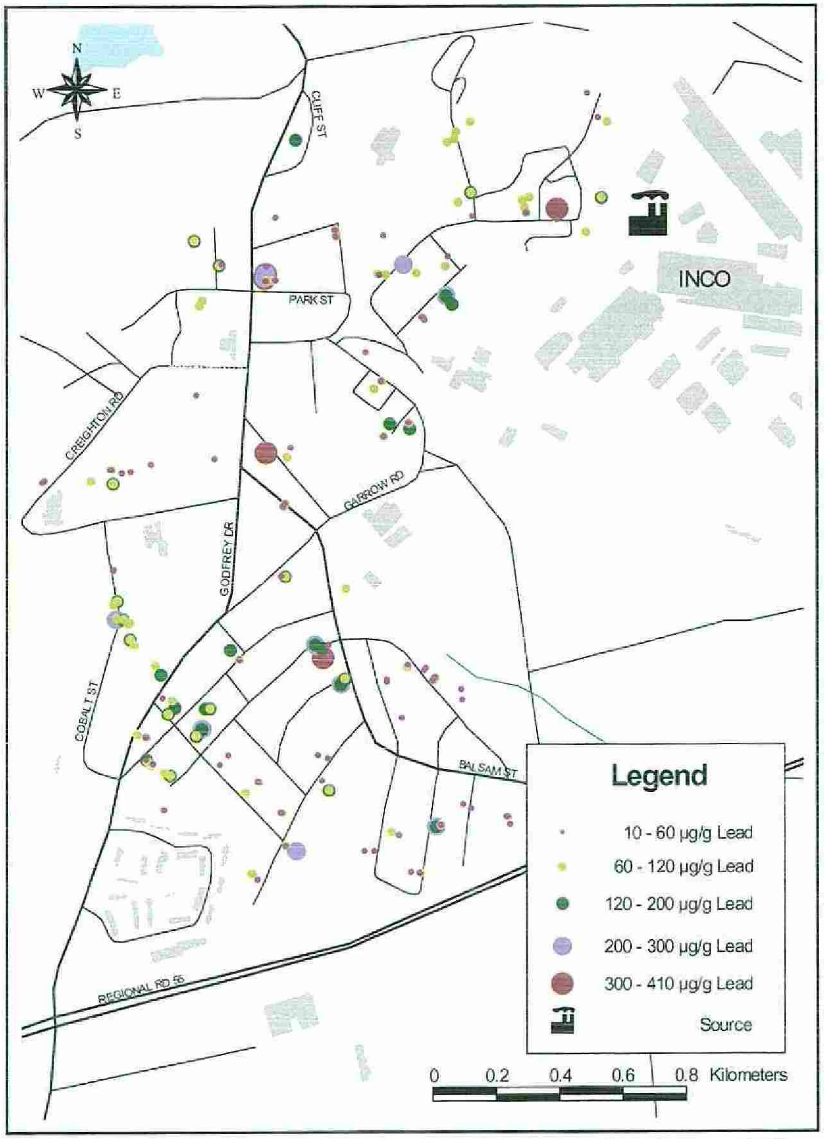
Map 10.2.1.6: Co concentrations in urban 10 - 20 cm soil in Copper Cliff



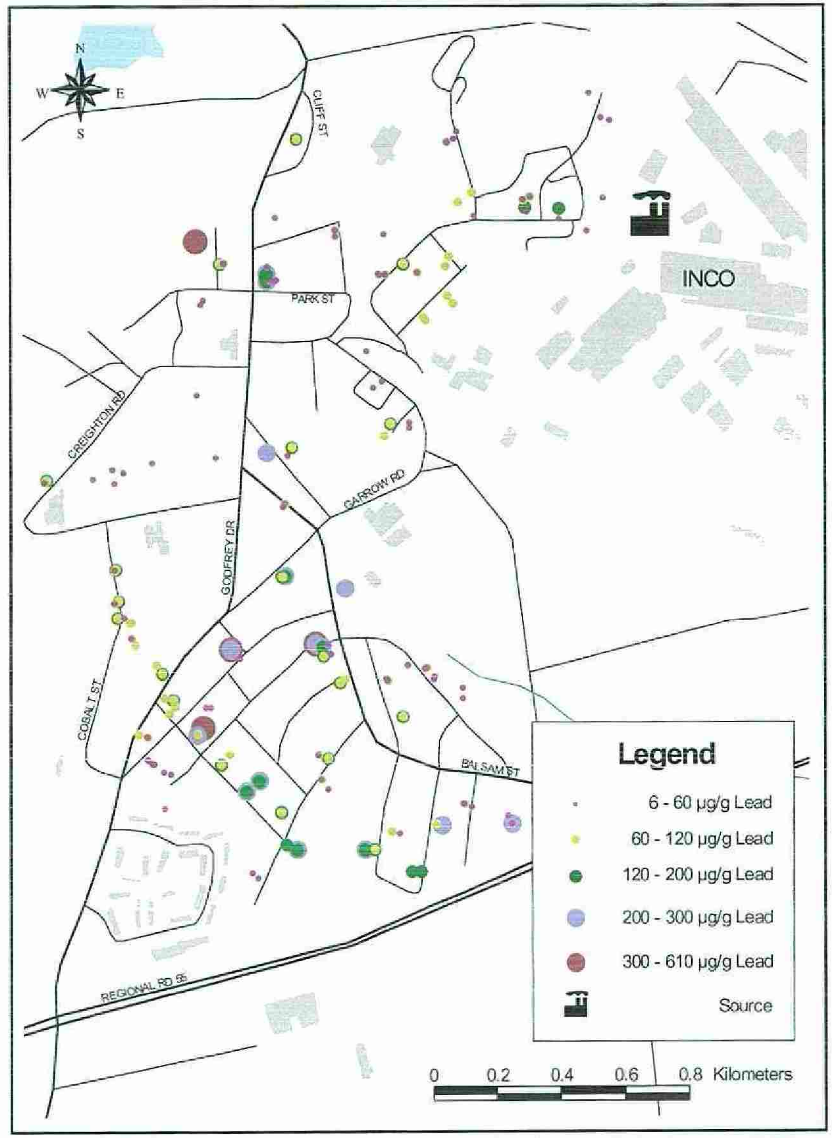
Map 10.2.1.7: As concentrations in urban 0 - 5 cm soil in Copper Cliff



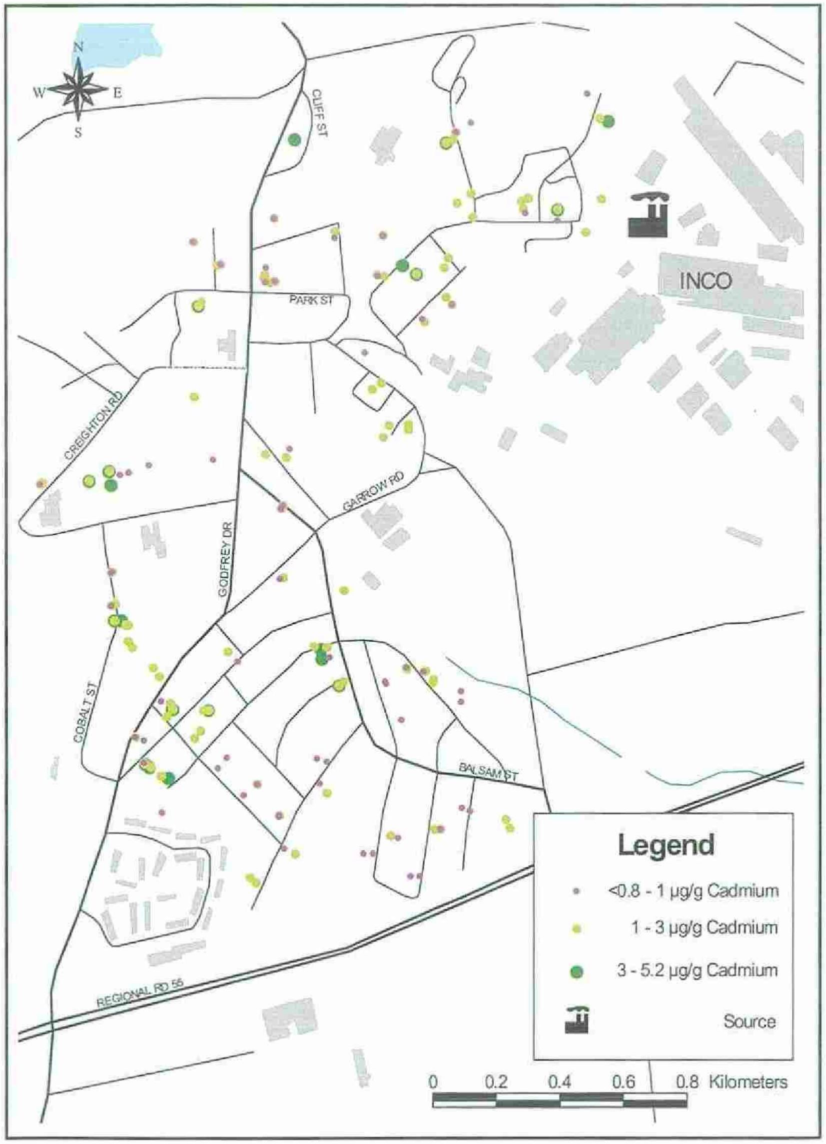
Map 10.2.1.8: As concentrations in urban 10 - 20 cm soil in Copper Cliff



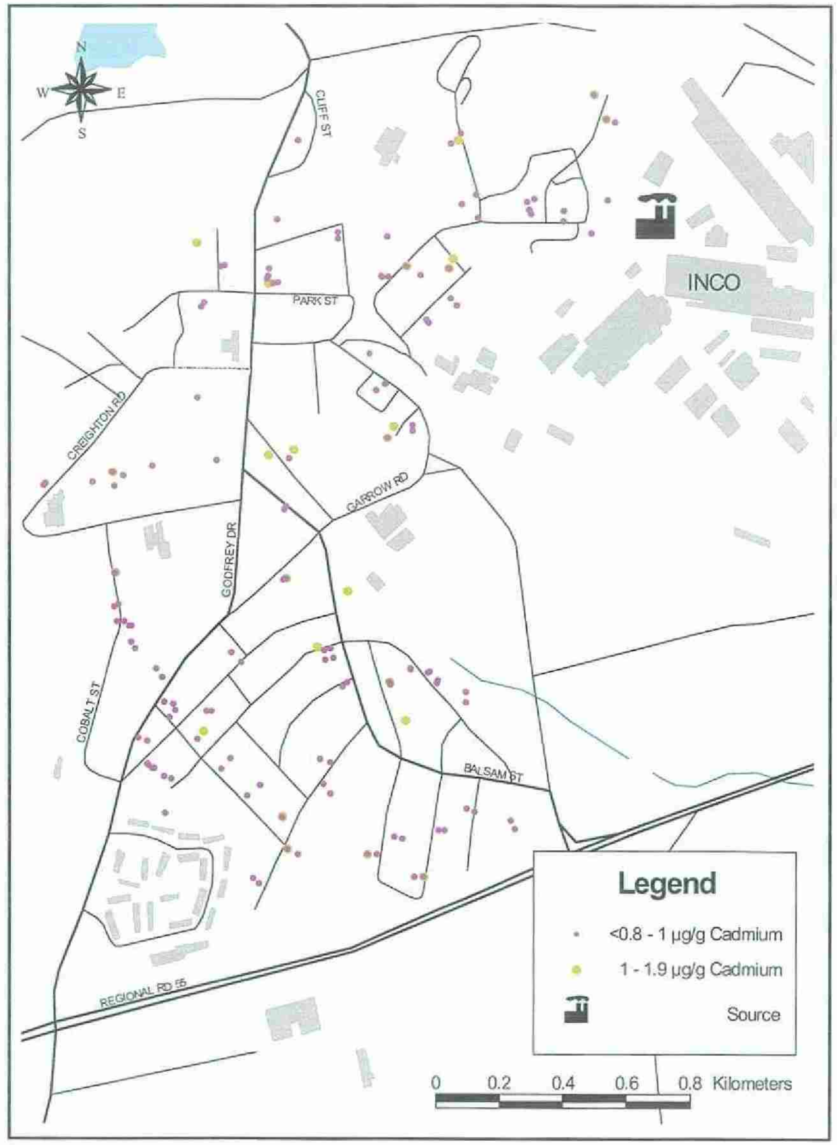
Map 10.2.1.9: Pb concentrations in urban 0 - 5 cm soil in Copper Cliff



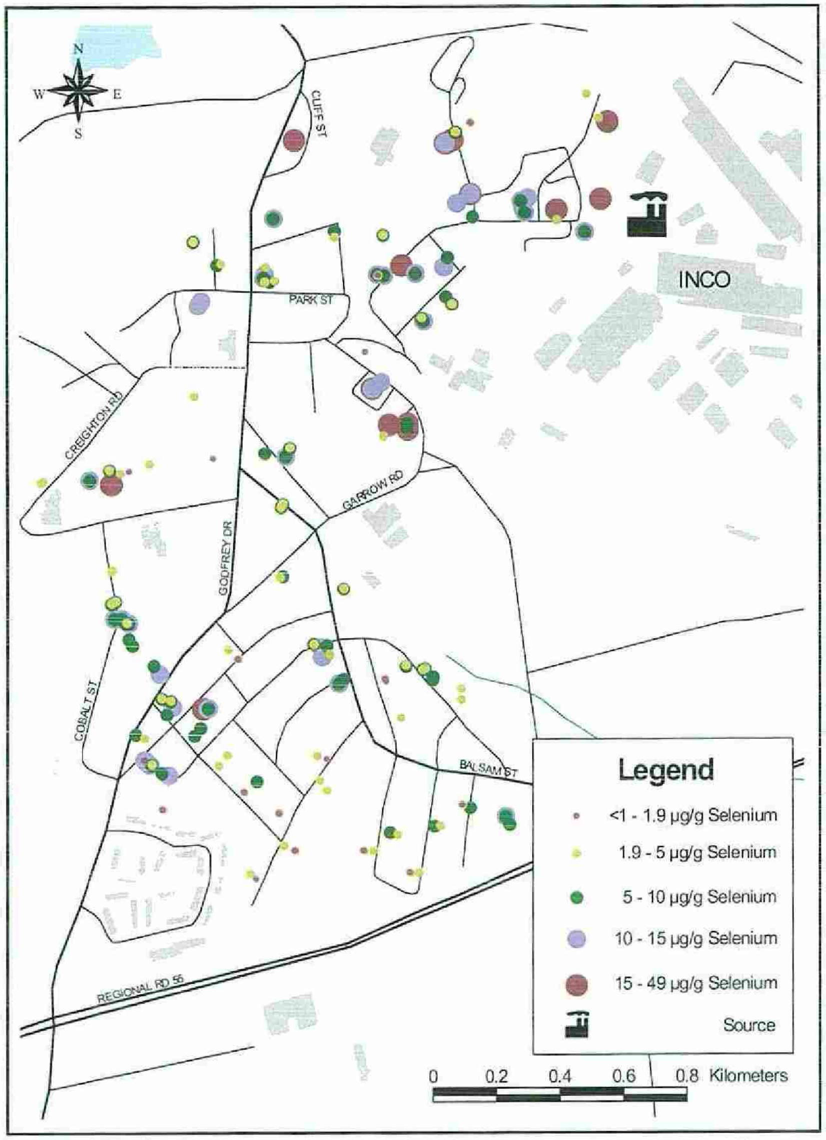
Map 10.2.1.10: Pb concentrations in urban 10 - 20 cm soil in Copper Cliff



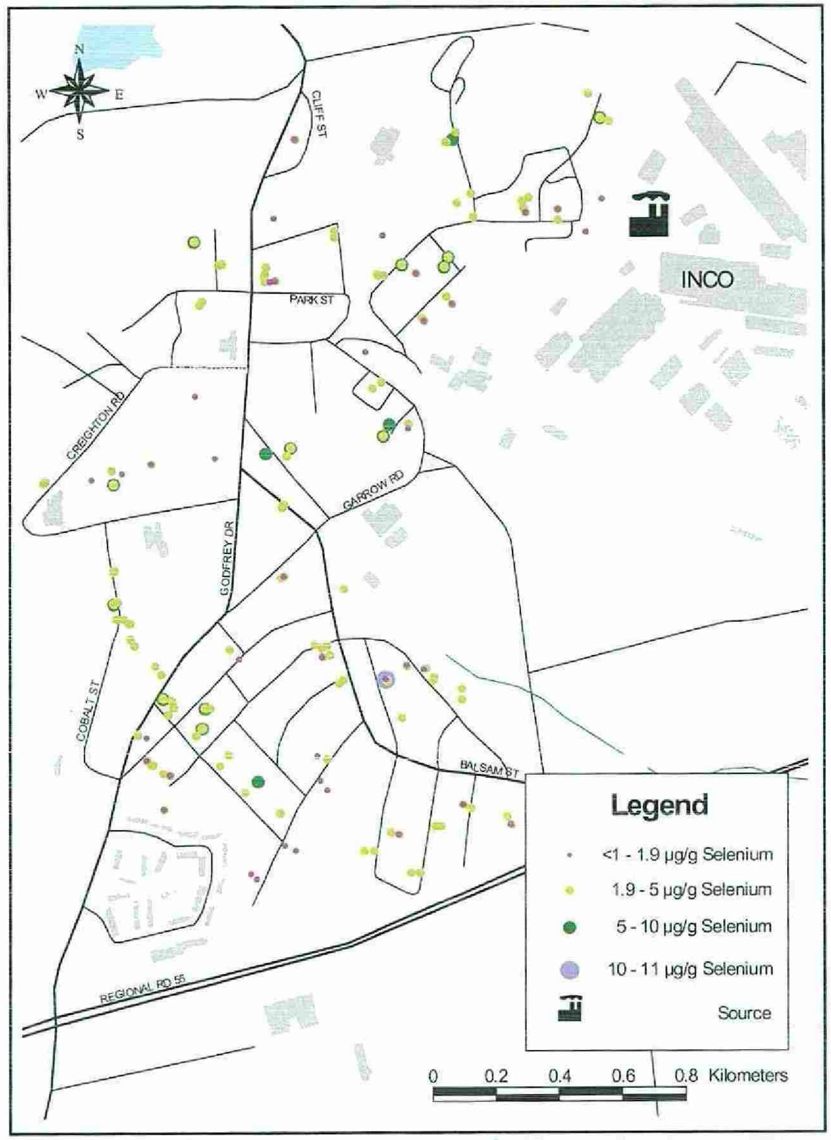
Map 10.2.1.11: Cd concentrations in urban 0 - 5 cm soil in Copper Cliff



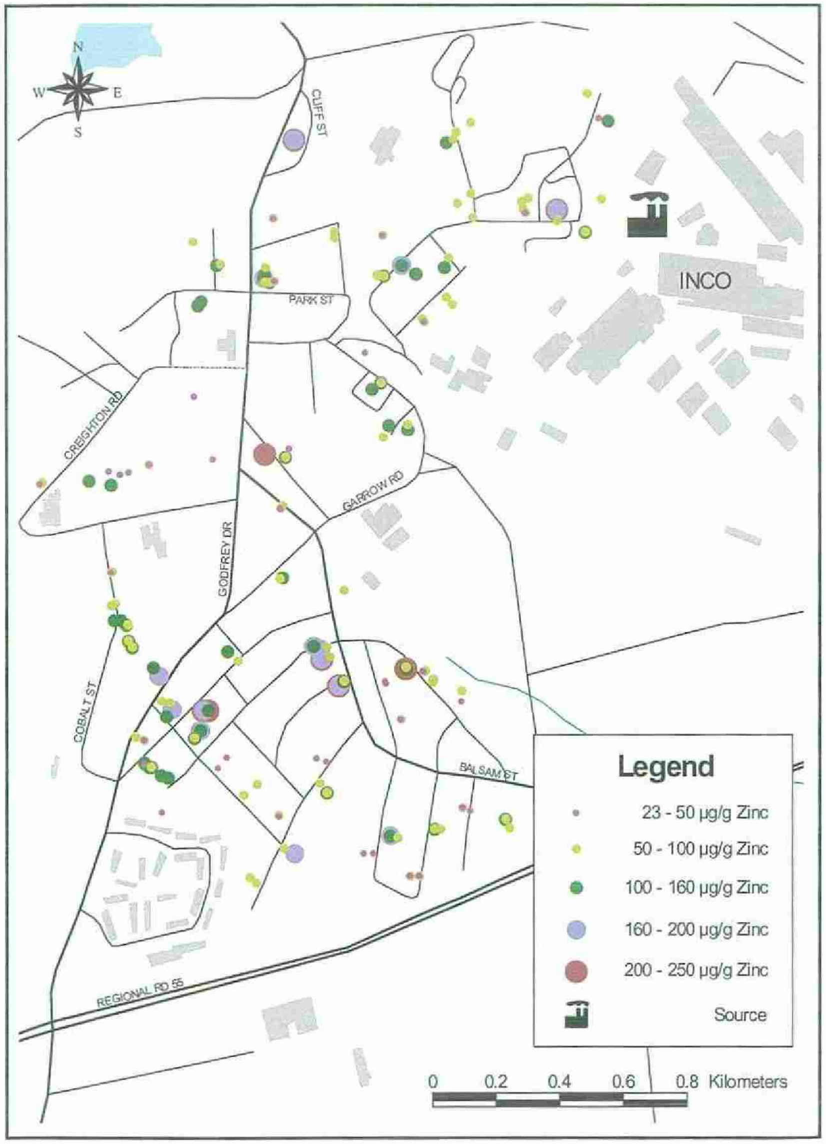
Map 10.2.1.12: Cd concentrations in urban 10 - 20 cm soil in Copper Cliff



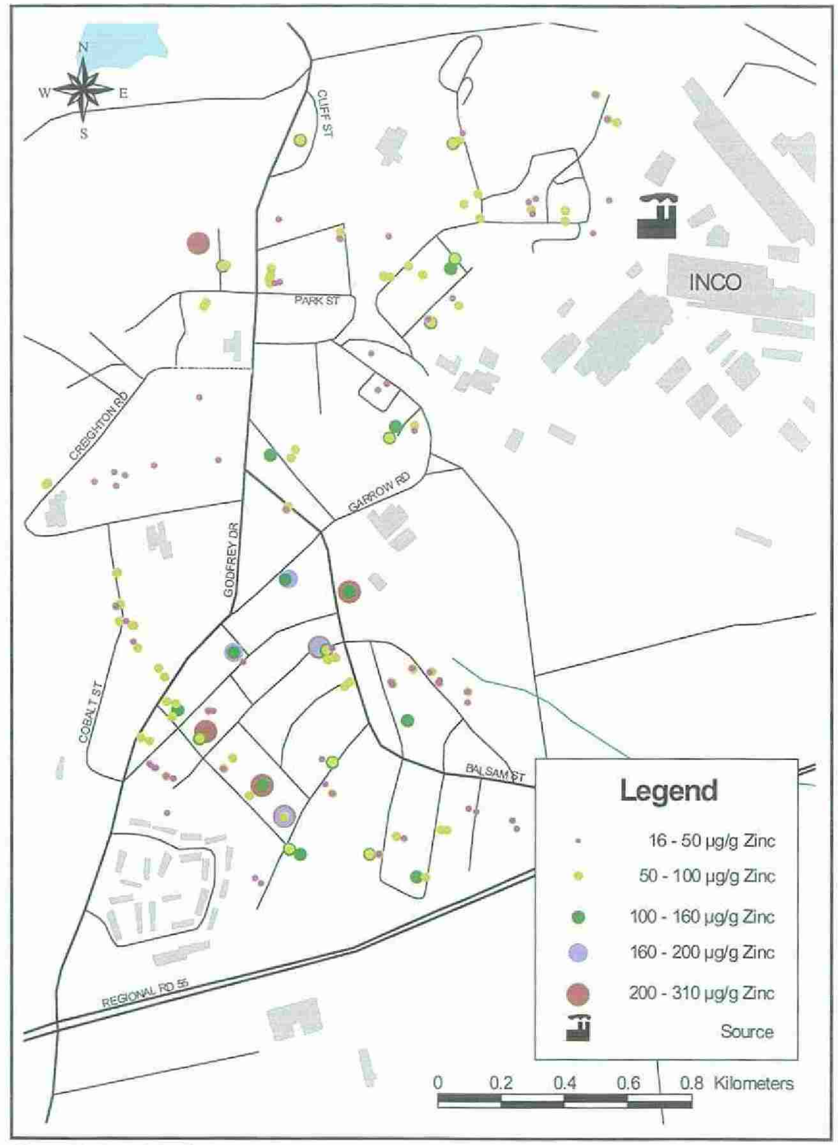
Map 10.2.1.13: Se concentrations in urban 0 - 5 cm soil in Copper Cliff



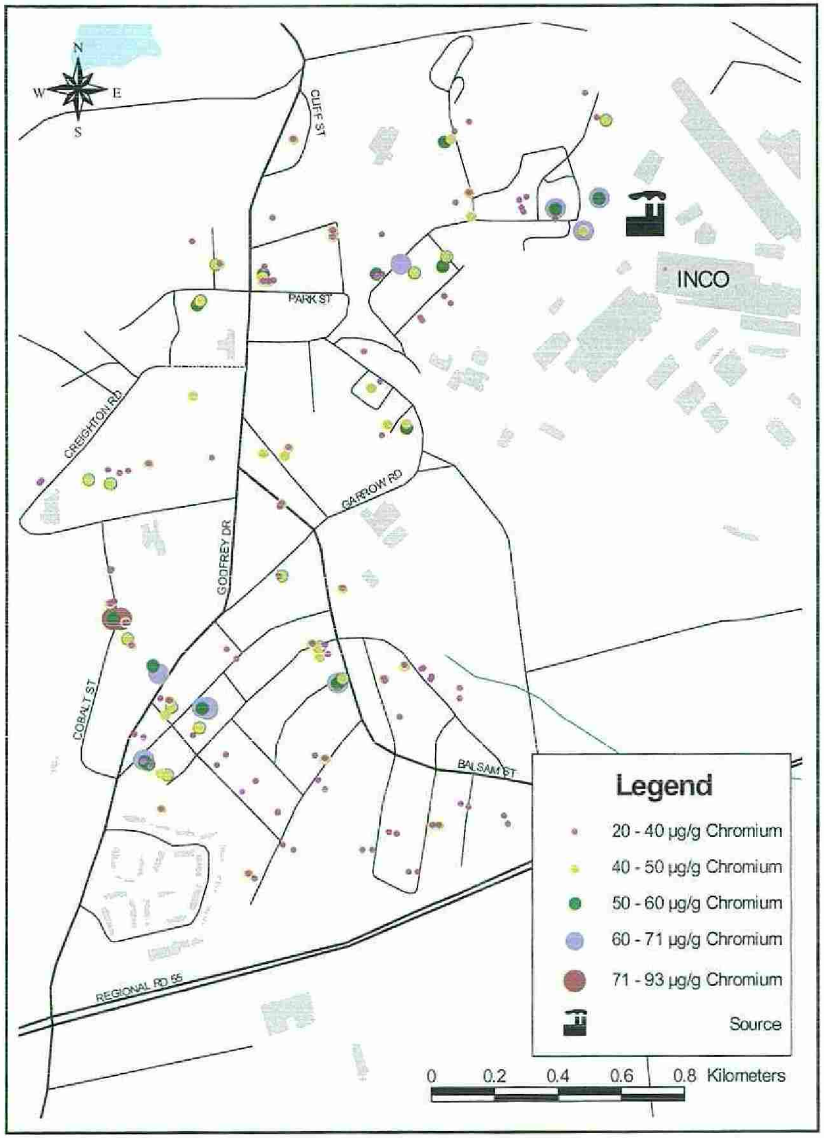
Map 10.2.1.14: Se concentrations in urban 10 - 20 cm soil in Copper Cliff



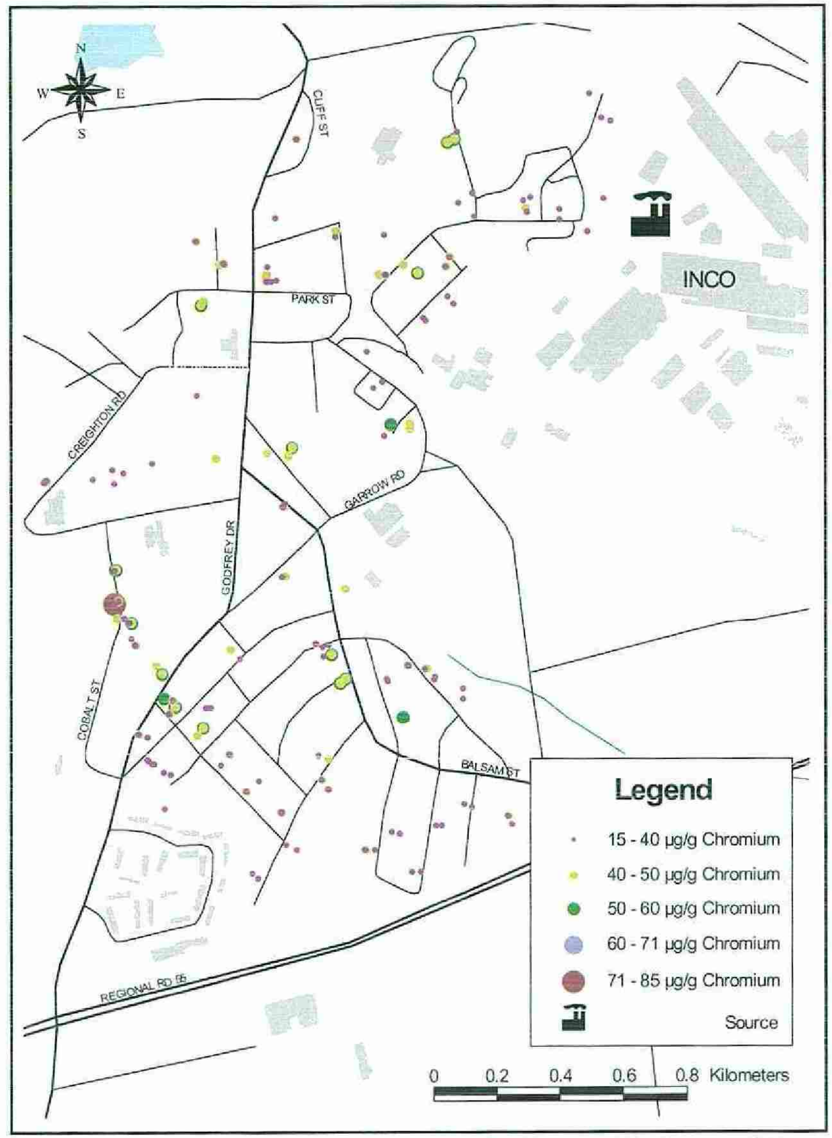
Map 10.2.1.15: Zn concentrations in urban 0 - 5 cm soil in Copper Cliff



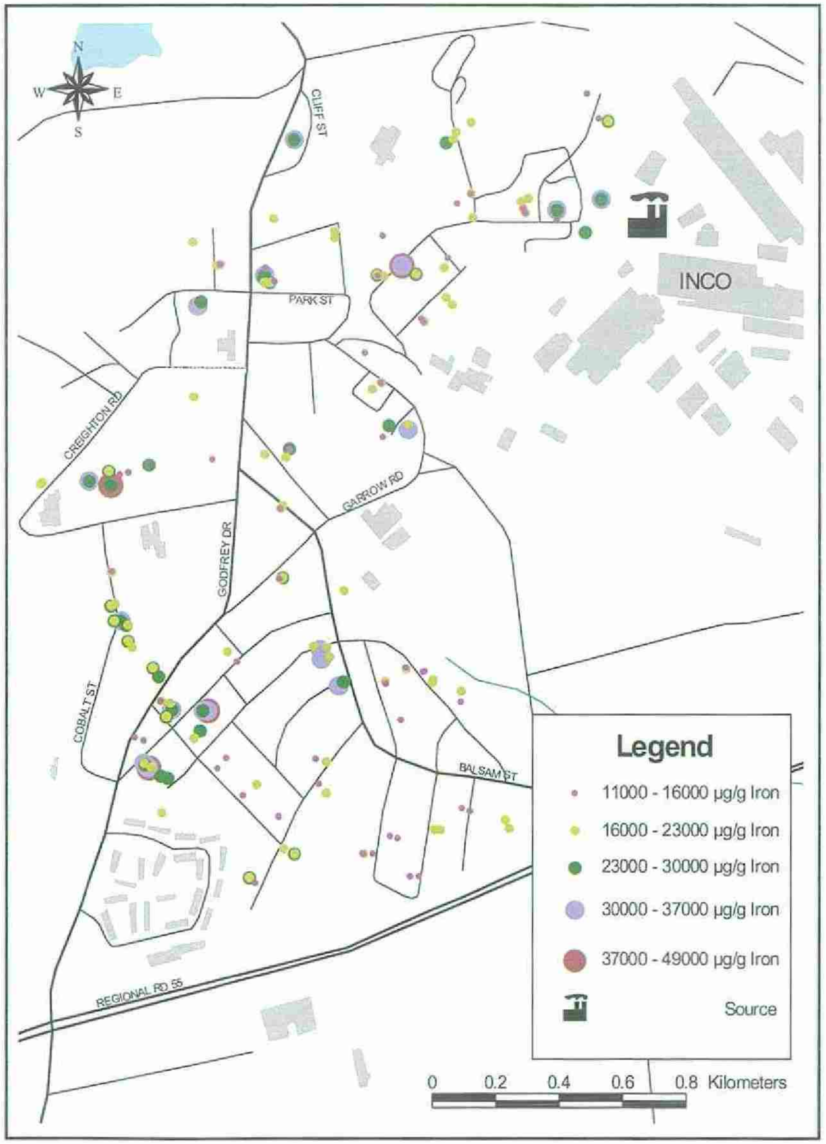
Map 10.2.1.16: Zn concentrations in urban 10 - 20 cm soil in Copper Cliff



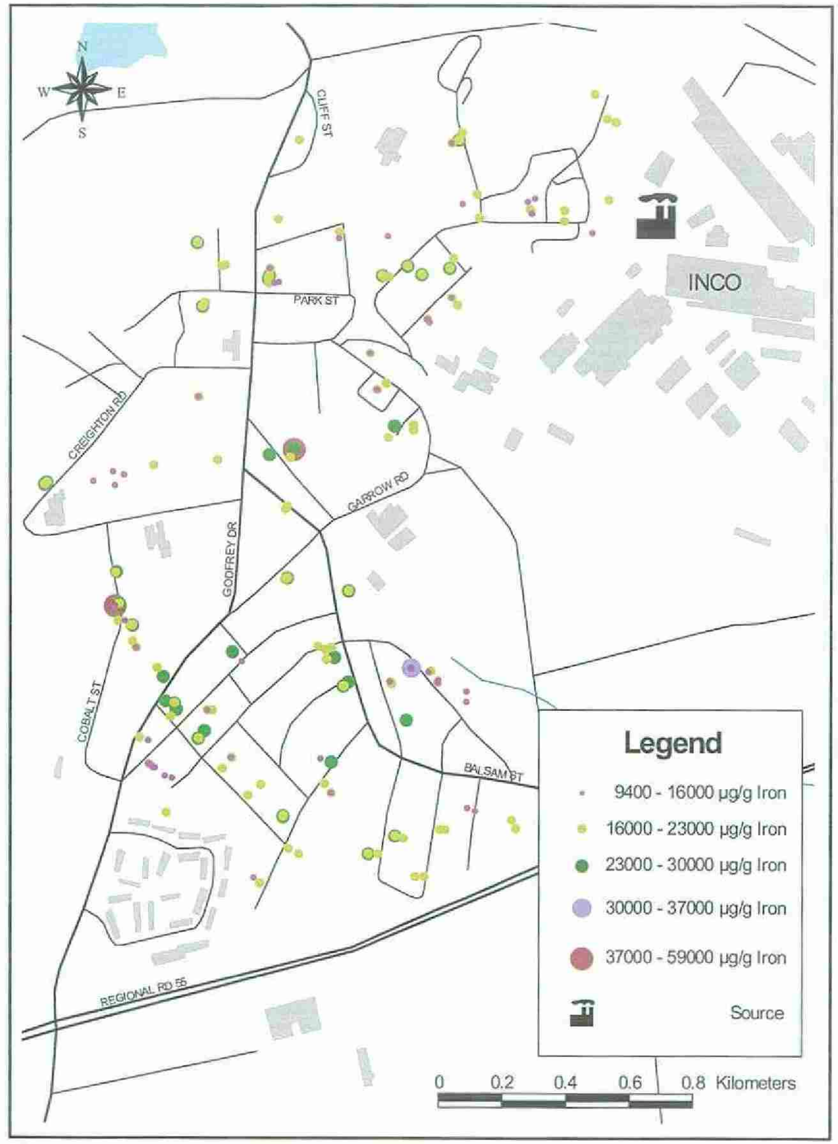
Map 10.2.1.17: Cr concentrations in urban 0 - 5 cm soil in Copper Cliff



Map 10.2.1.18: Cr concentrations in urban 10 - 20 cm soil in Copper Cliff

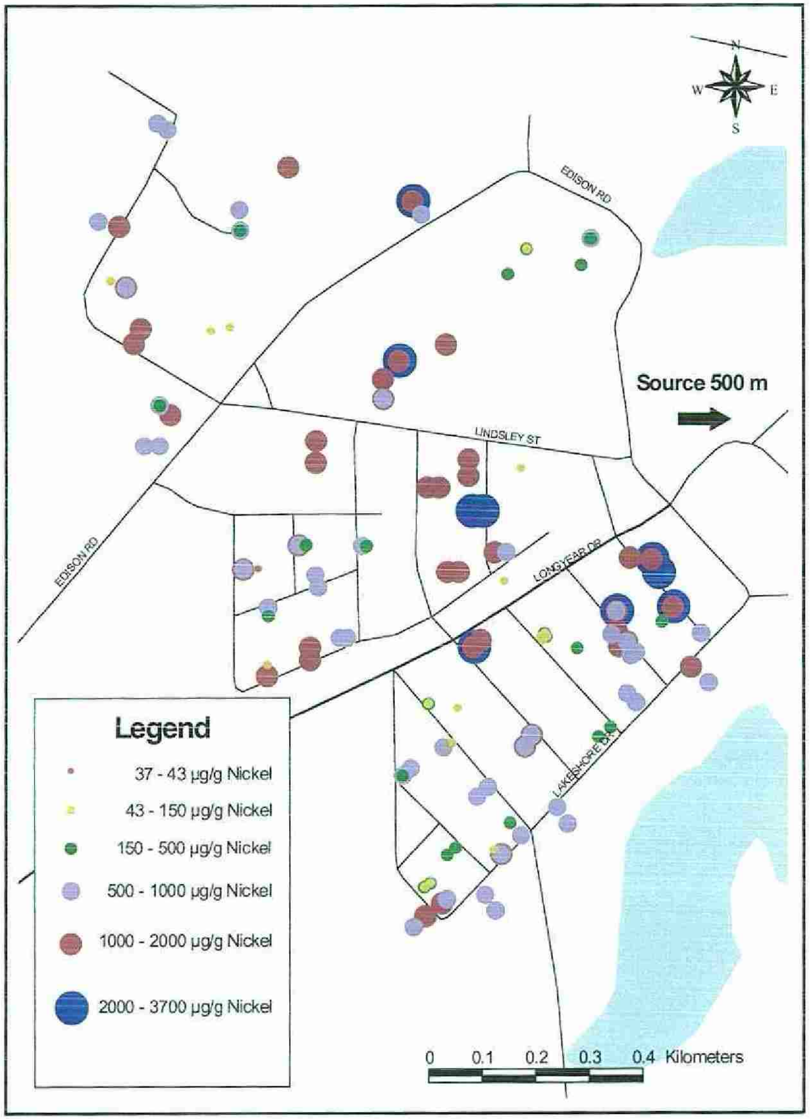


Map 10.2.1.19: Fe concentrations in urban 0 - 5 cm soil in Copper Cliff

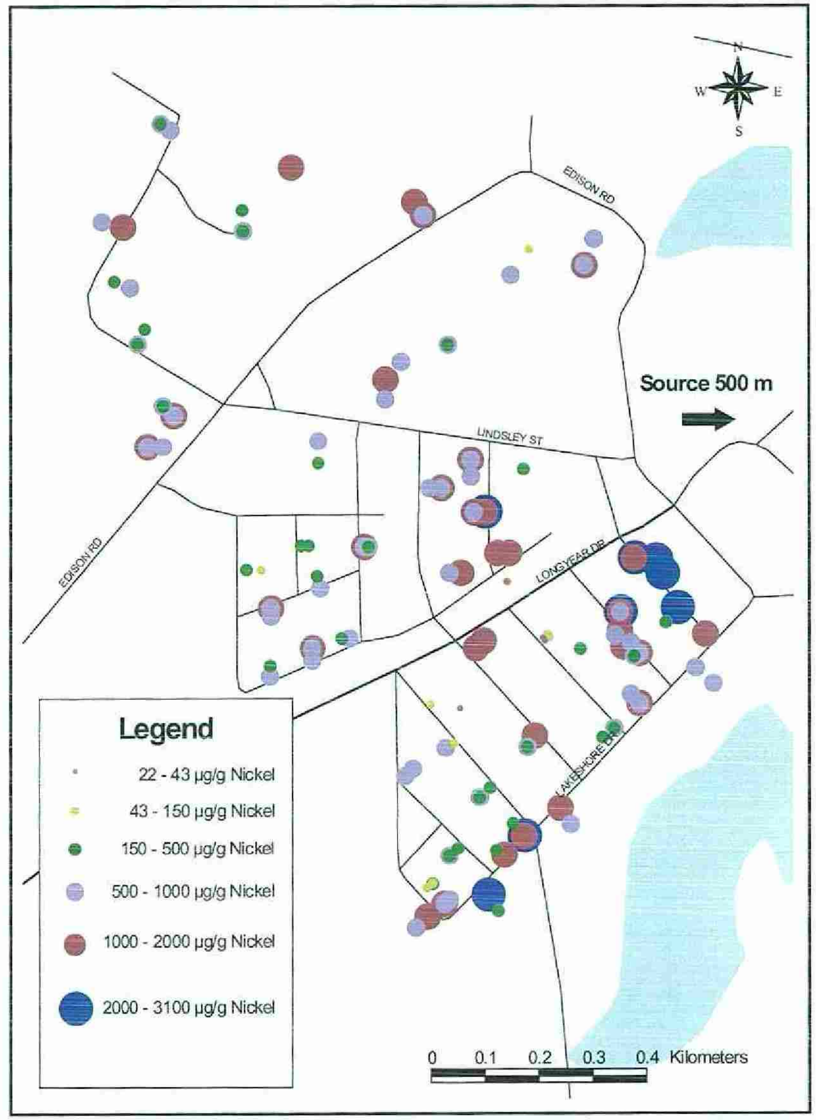


Map 10.2.1.20: Fe concentrations in urban 10 - 20 cm soil in Copper Cliff

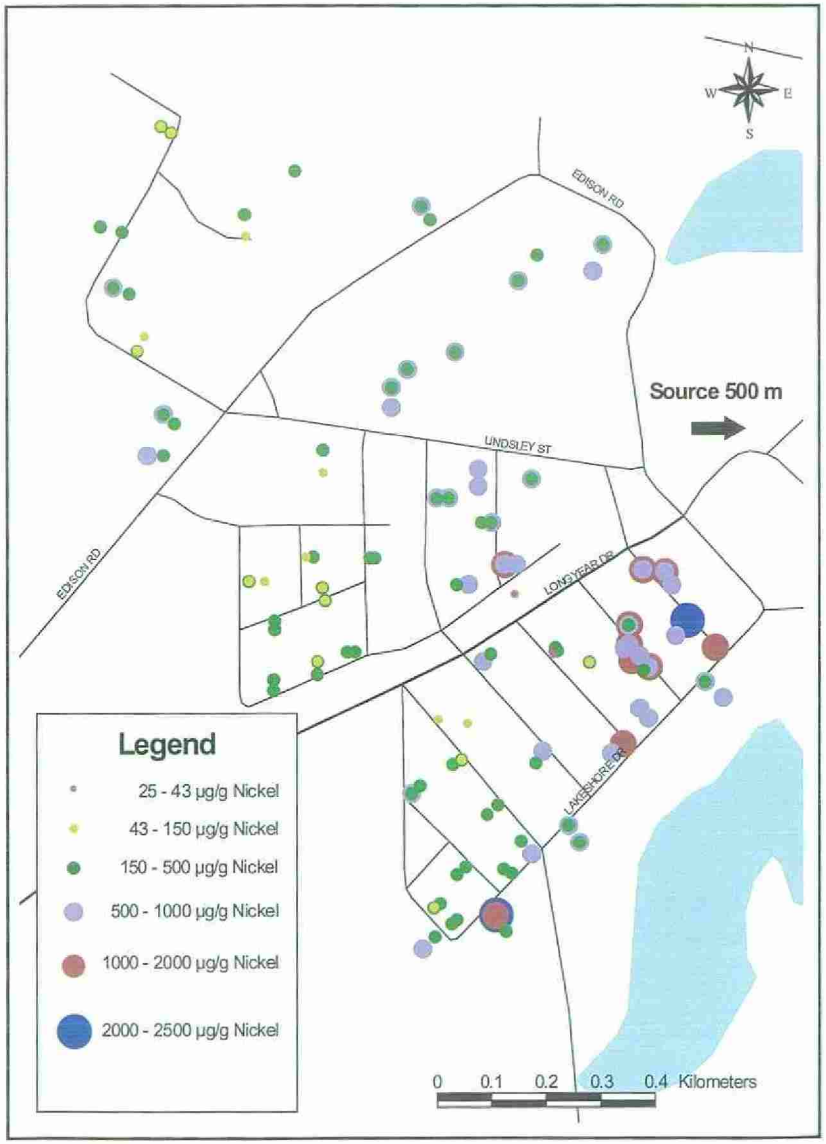
10.2.2 Falconbridge



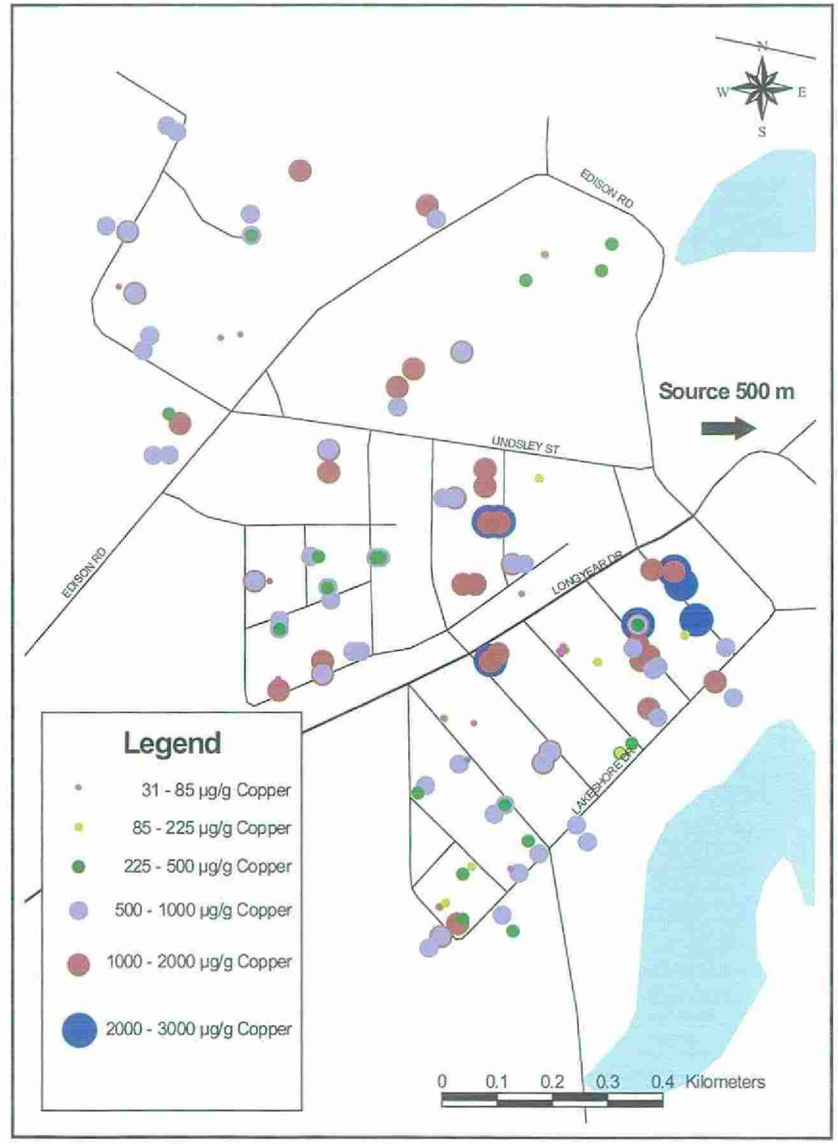
Map 10.2.2.1: Ni concentrations in urban 0 - 5 cm soil in Falconbridge



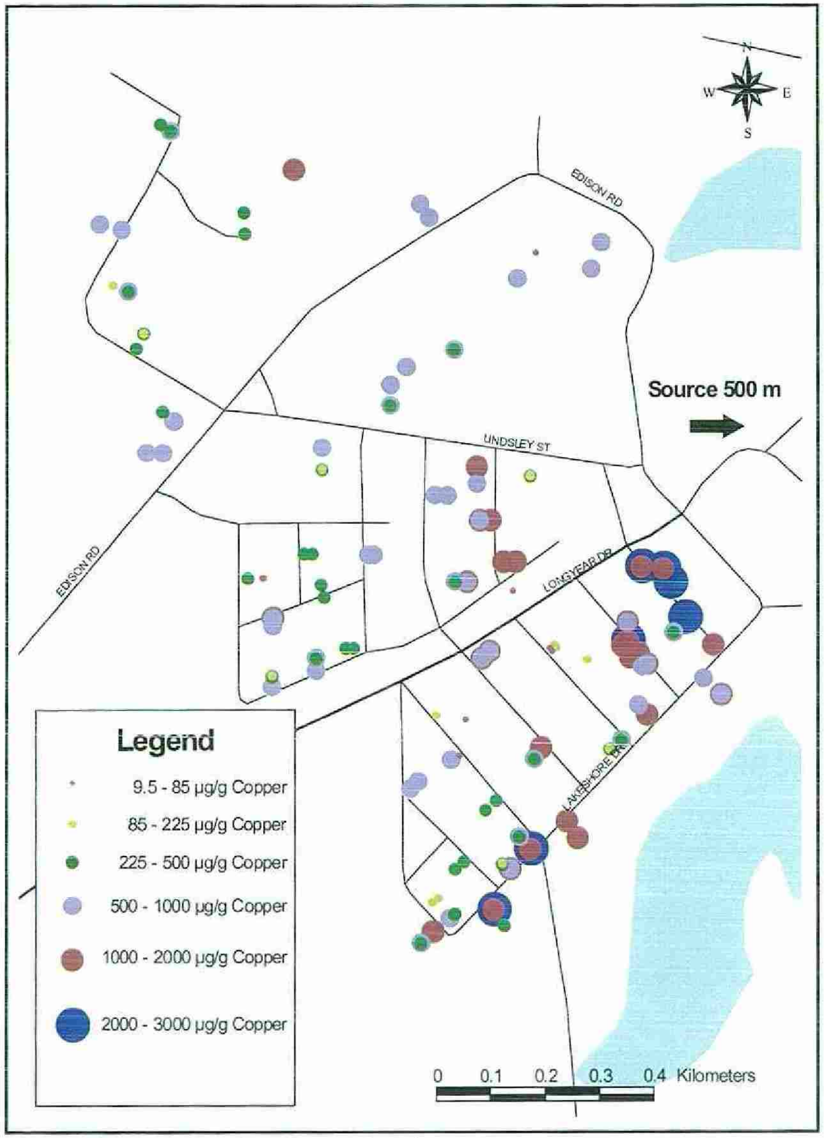
Map 10.2.2.2: Ni concentrations in urban 5 - 10 cm soil in Falconbridge



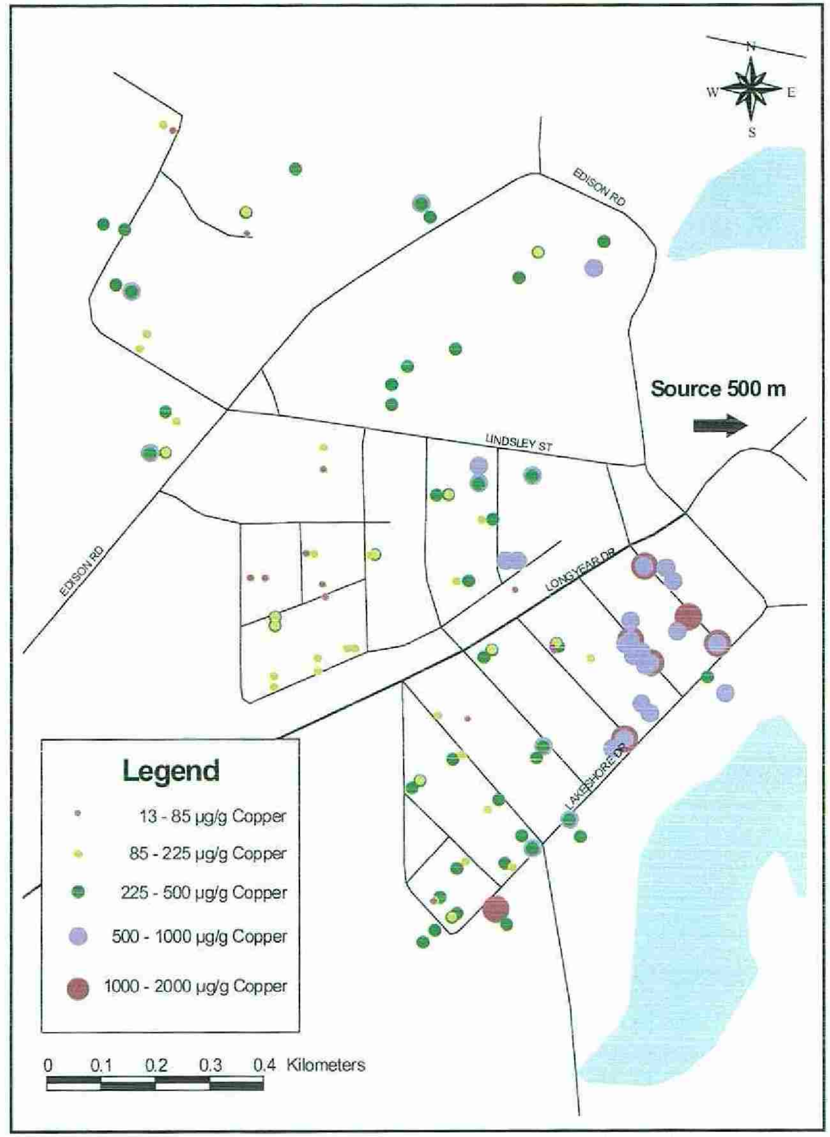
Map 10.2.2.3: Ni concentrations in urban 10 - 20 cm soil in Falconbridge



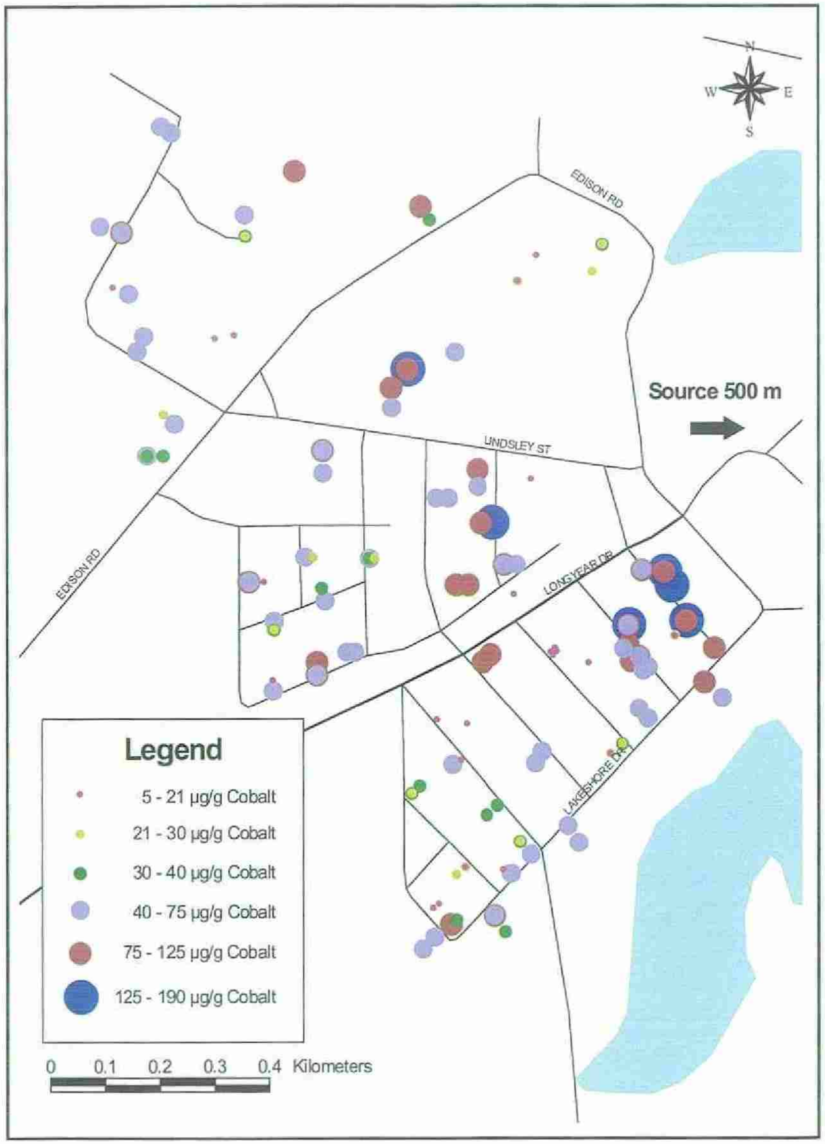
Map 10.2.2.4: Cu concentrations in urban 0 - 5 cm soil in Falconbridge



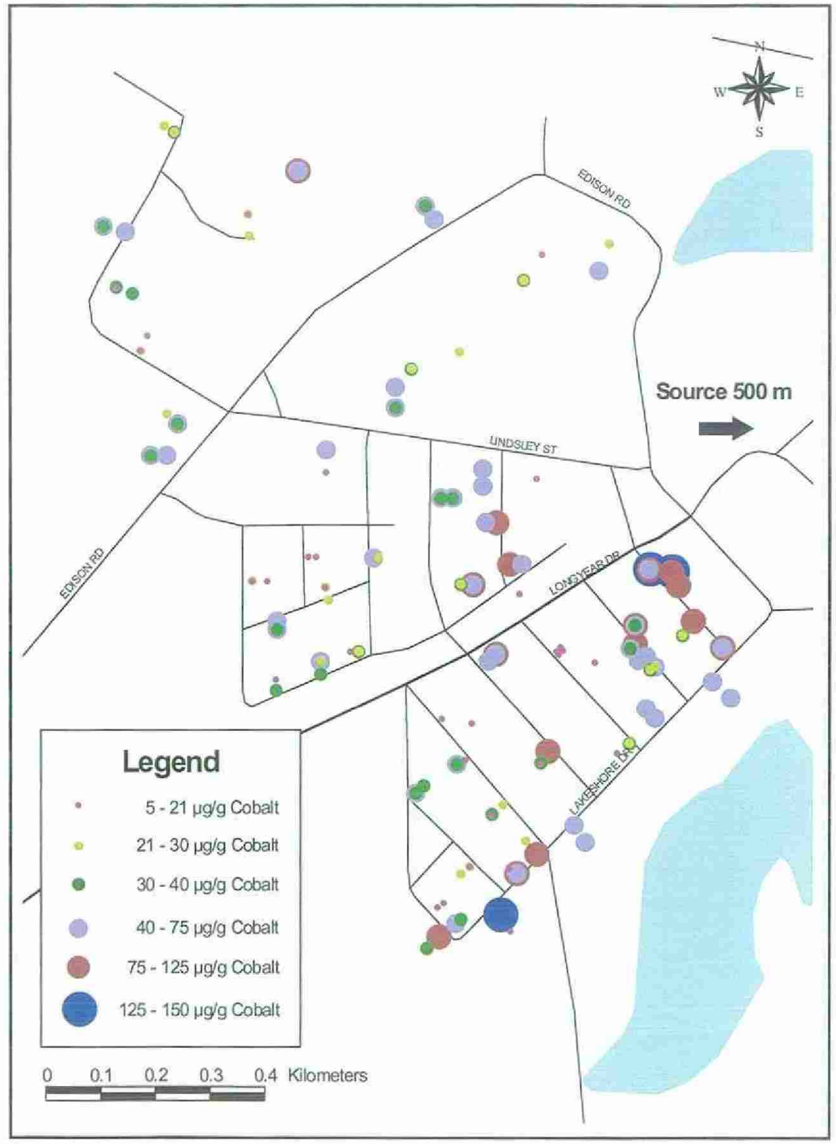
Map 10.2.2.5: Cu concentrations in urban 5 - 10 cm soil in Falconbridge



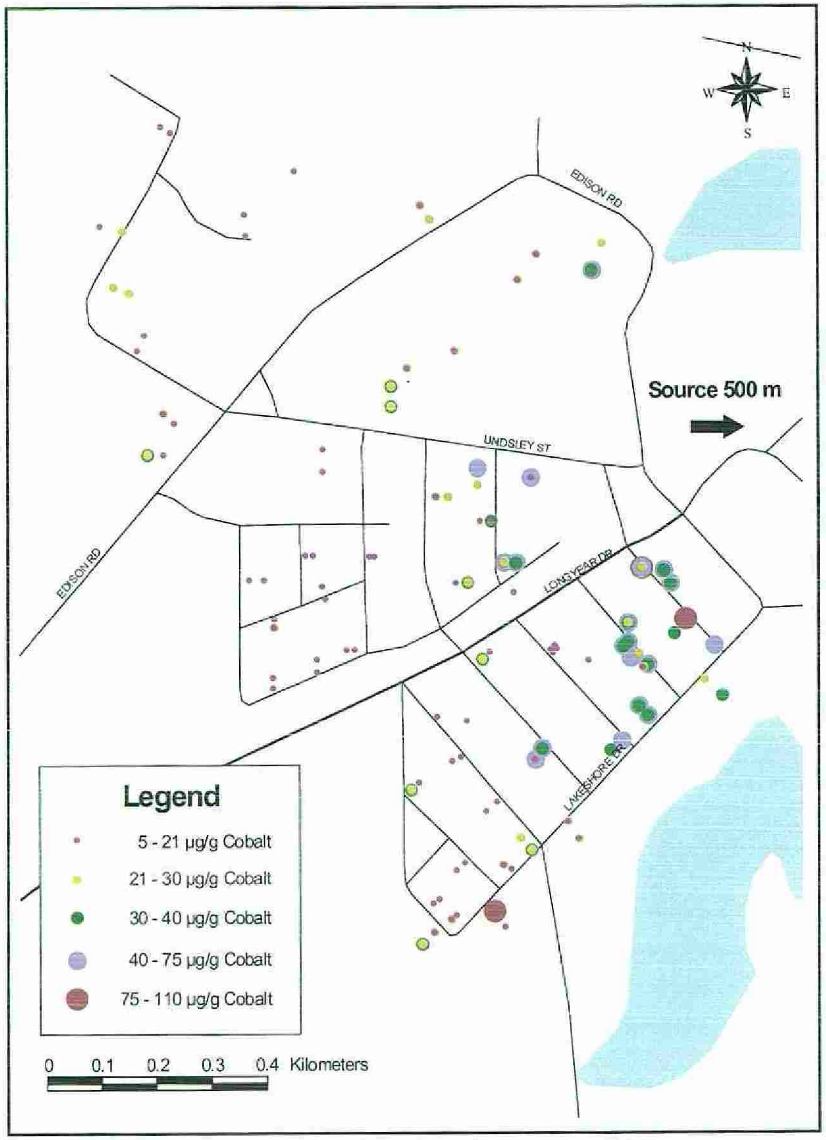
Map 10.2.2.6: Cu concentrations in urban 10 - 20 cm soil in Falconbridge



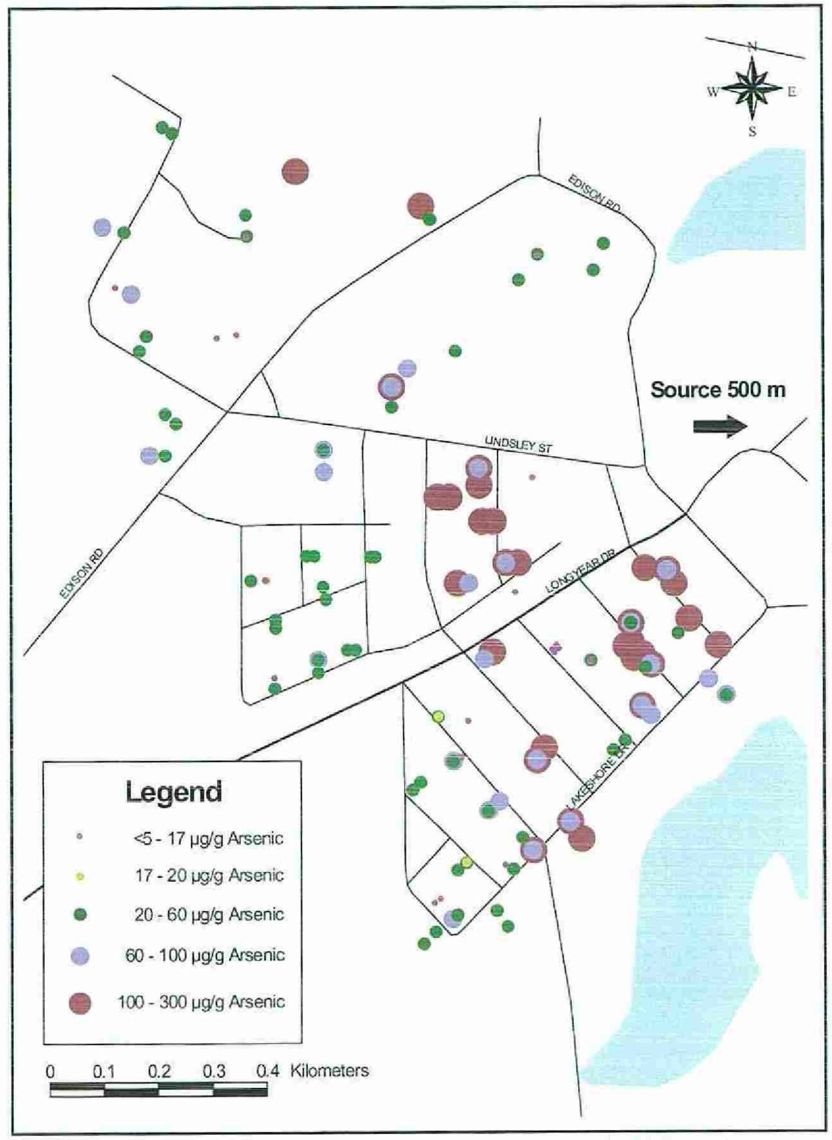
Map 10.2.2.7: Co concentrations in urban 0 - 5 cm soil in Falconbridge



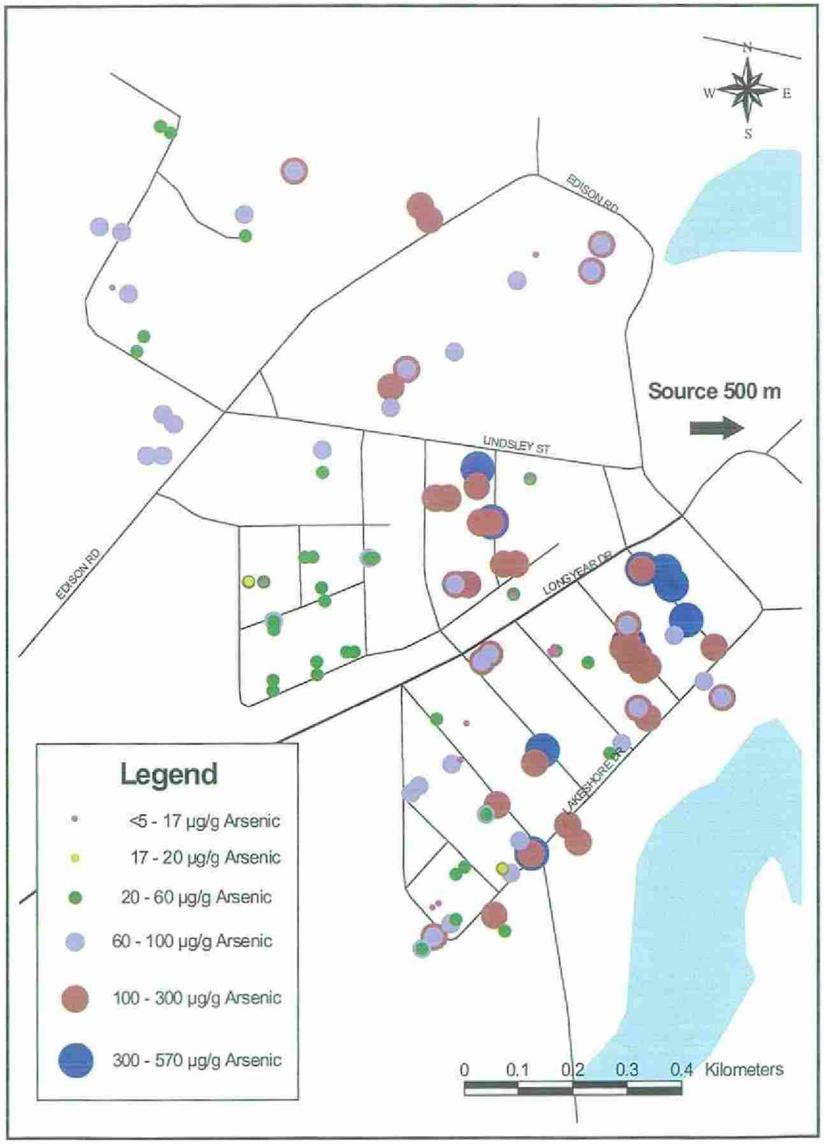
Map 10.2.2.8: Co concentrations in urban 5 - 10 cm soil in Falconbridge



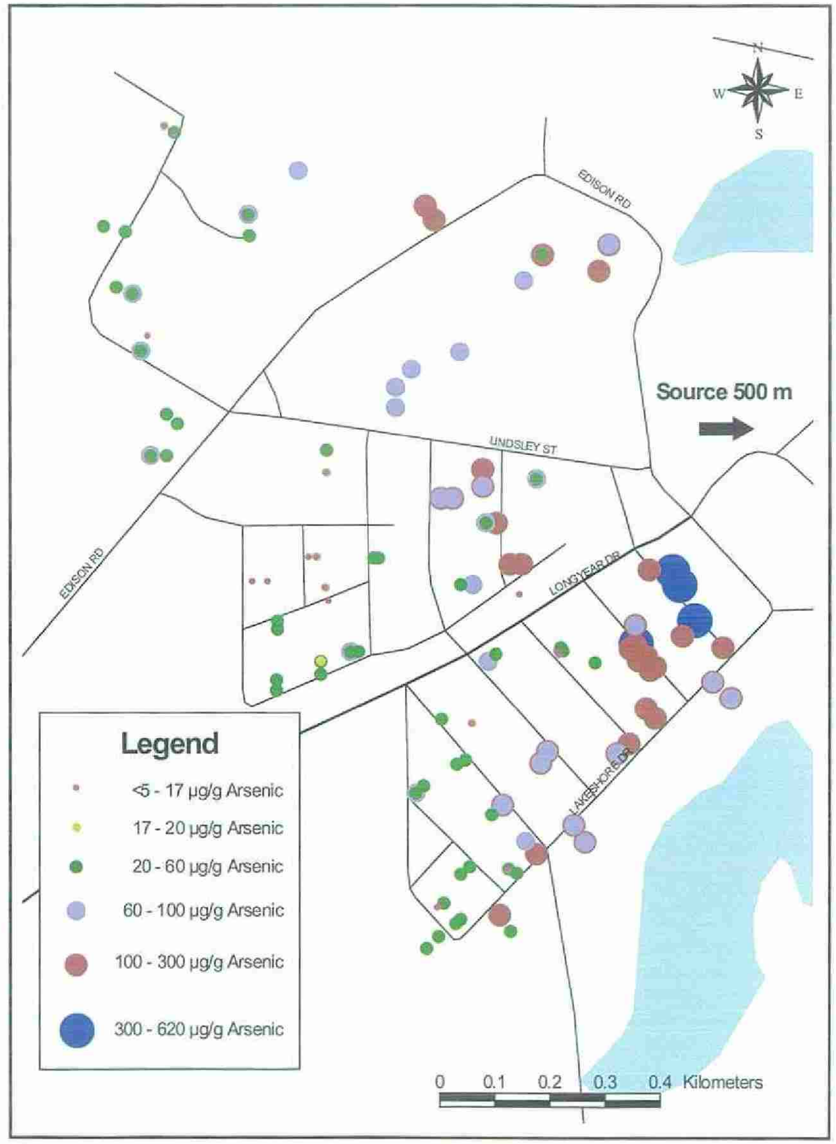
Map 10.2.2.9: Co concentrations in urban 10 - 20 cm soil in Falconbridge



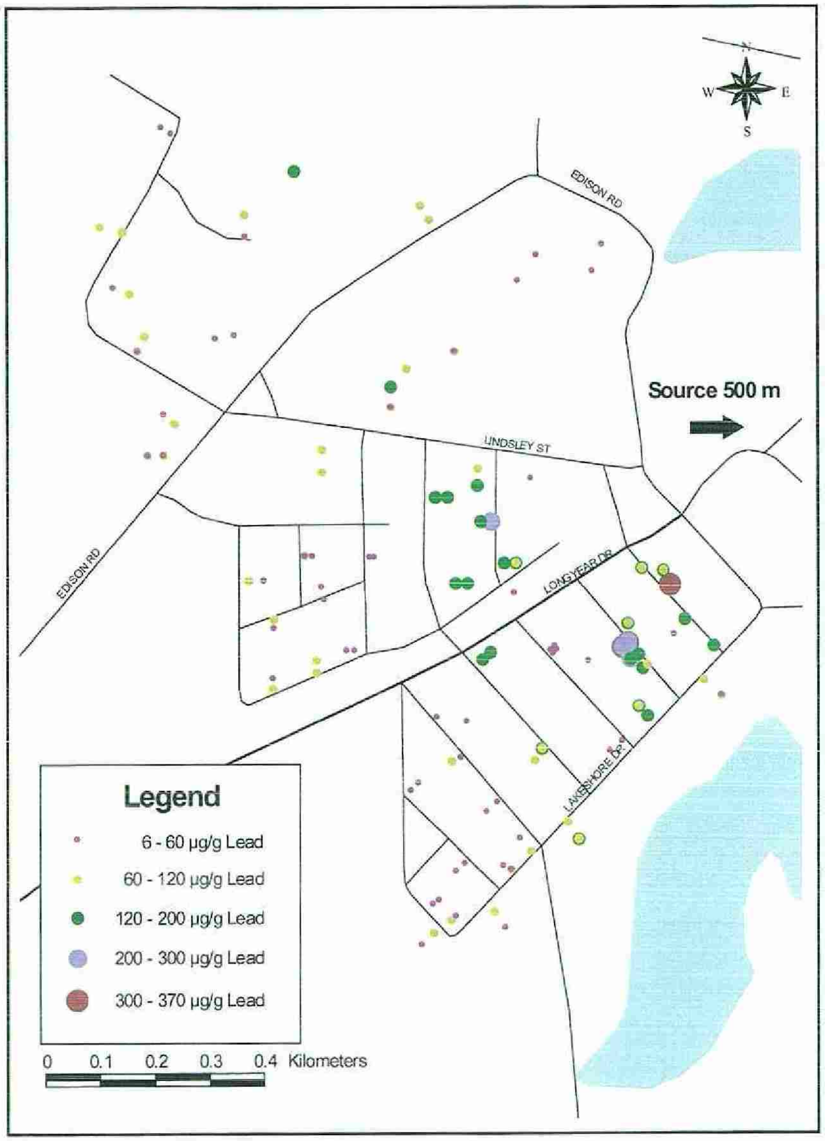
Map 10.2.2.10: As concentrations in urban 0 - 5 cm soil in Falconbridge



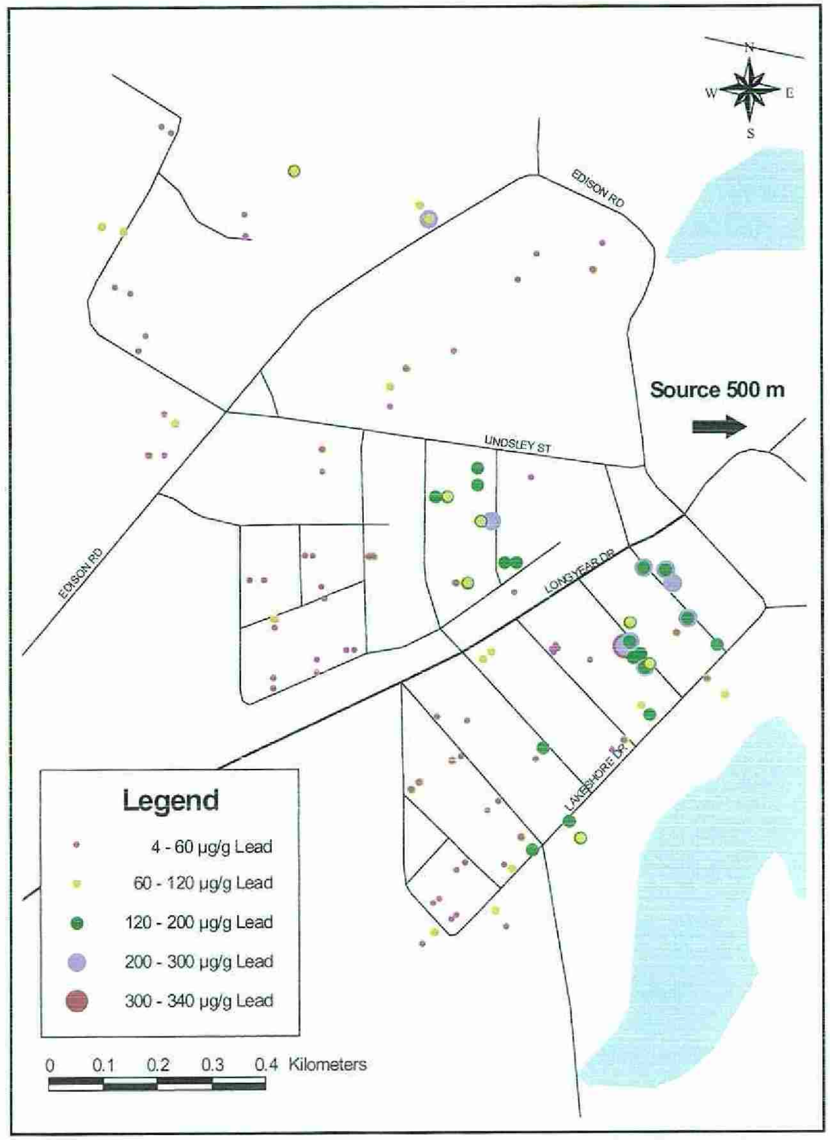
Map 10.2.2.11: As concentrations in urban 5 - 10 cm soil in Falconbridge



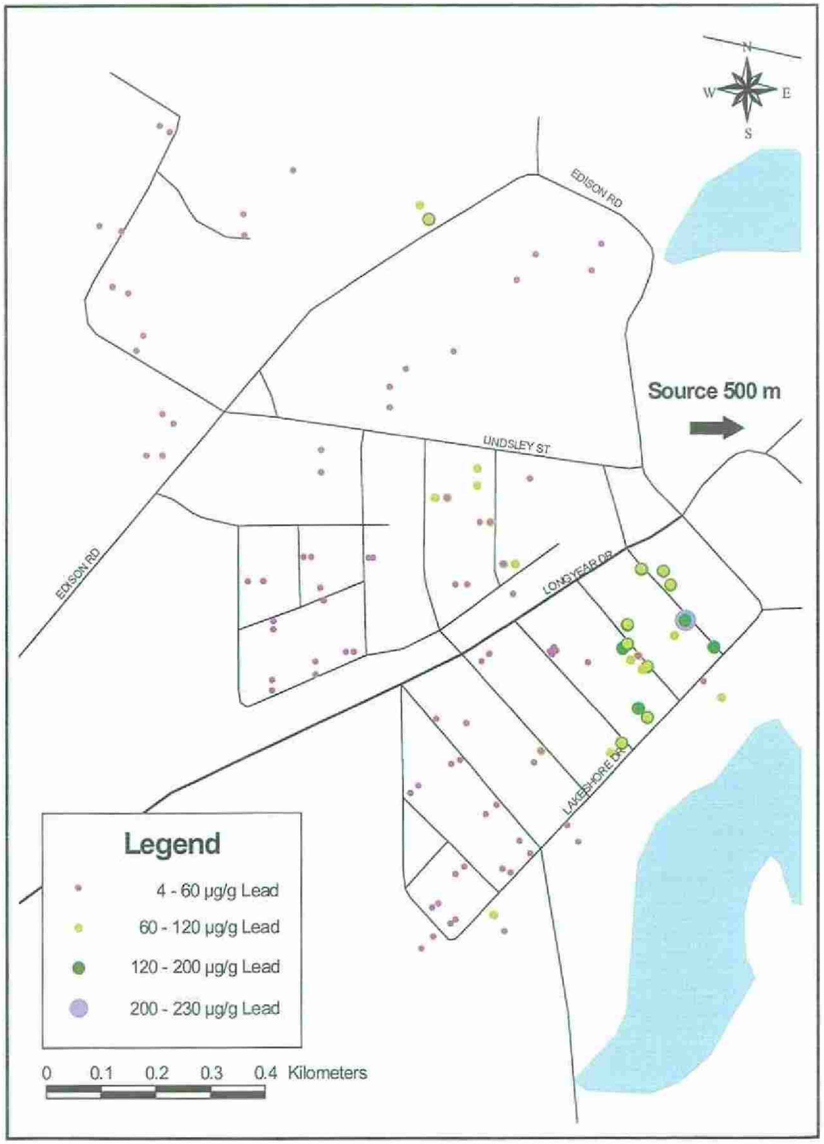
Map 10.2.2.12: As concentrations in urban 10 - 20 cm soil in Falconbridge



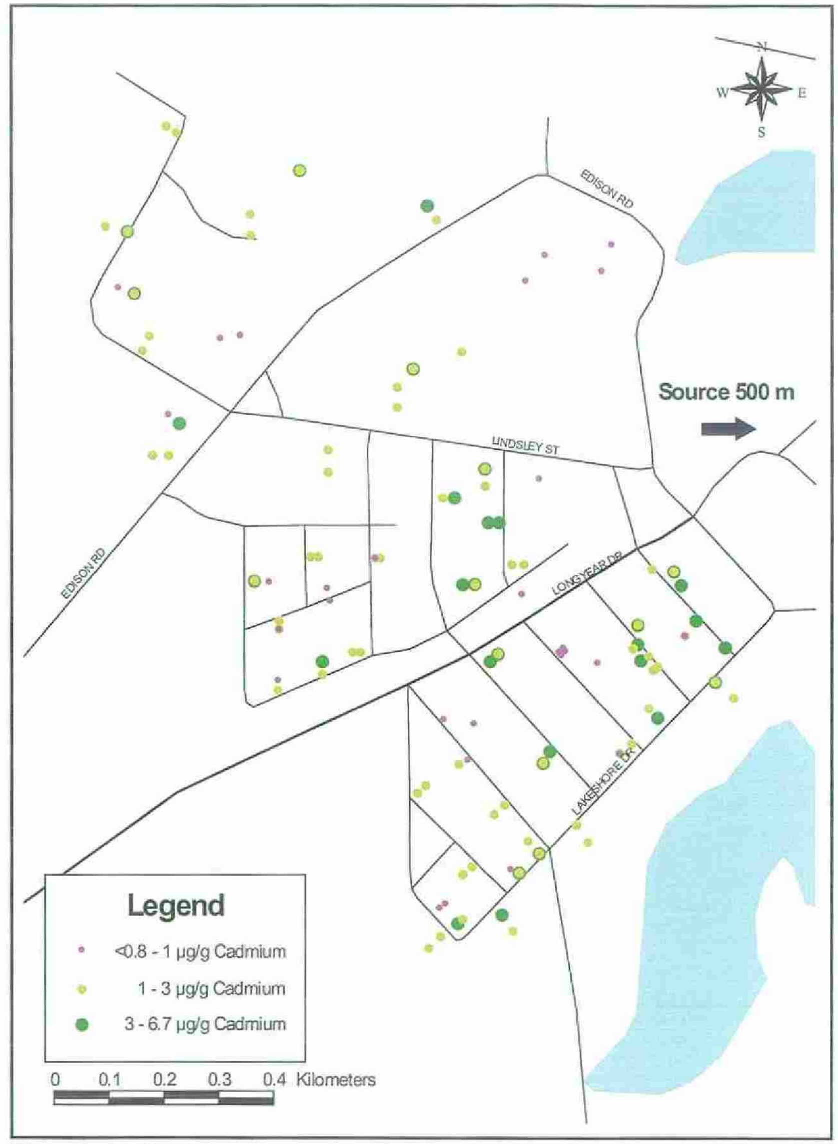
Map 10.2.2.13: Pb concentrations in urban 0 - 5 cm soil in Falconbridge



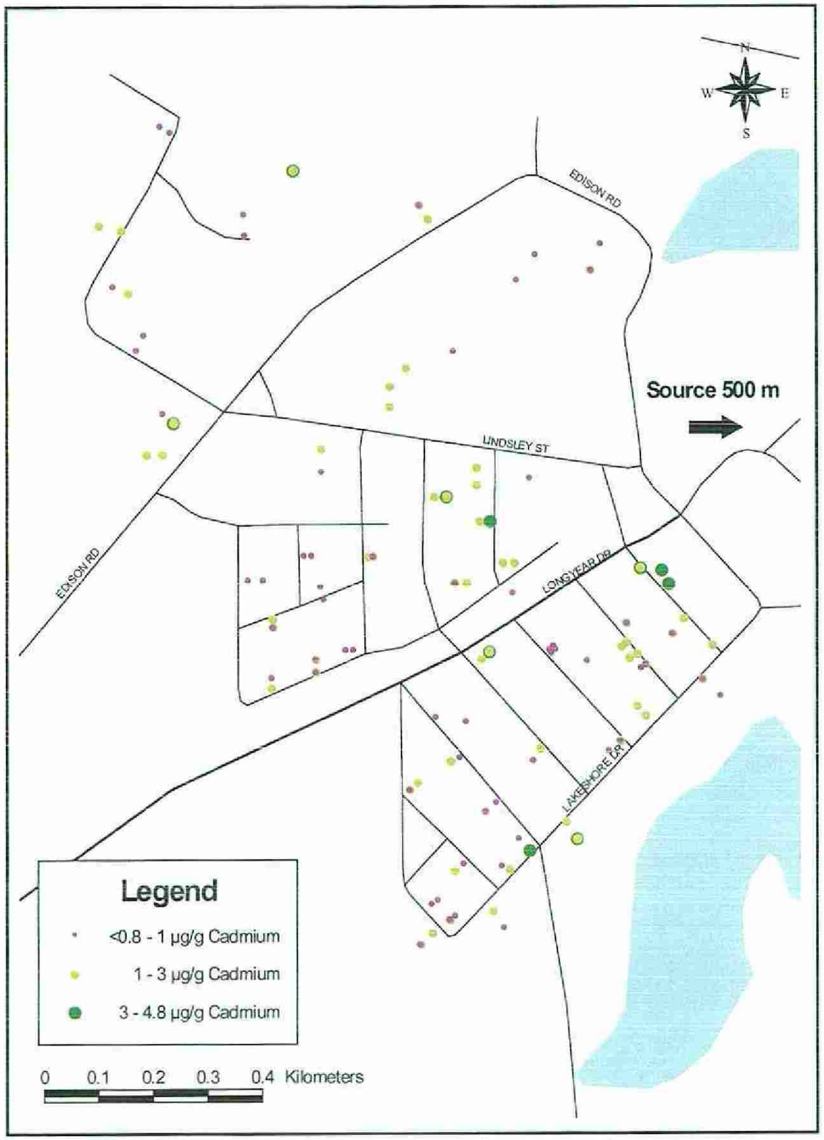
Map 10.2.2.14: Pb concentrations in urban 5 - 10 cm soil in Falconbridge



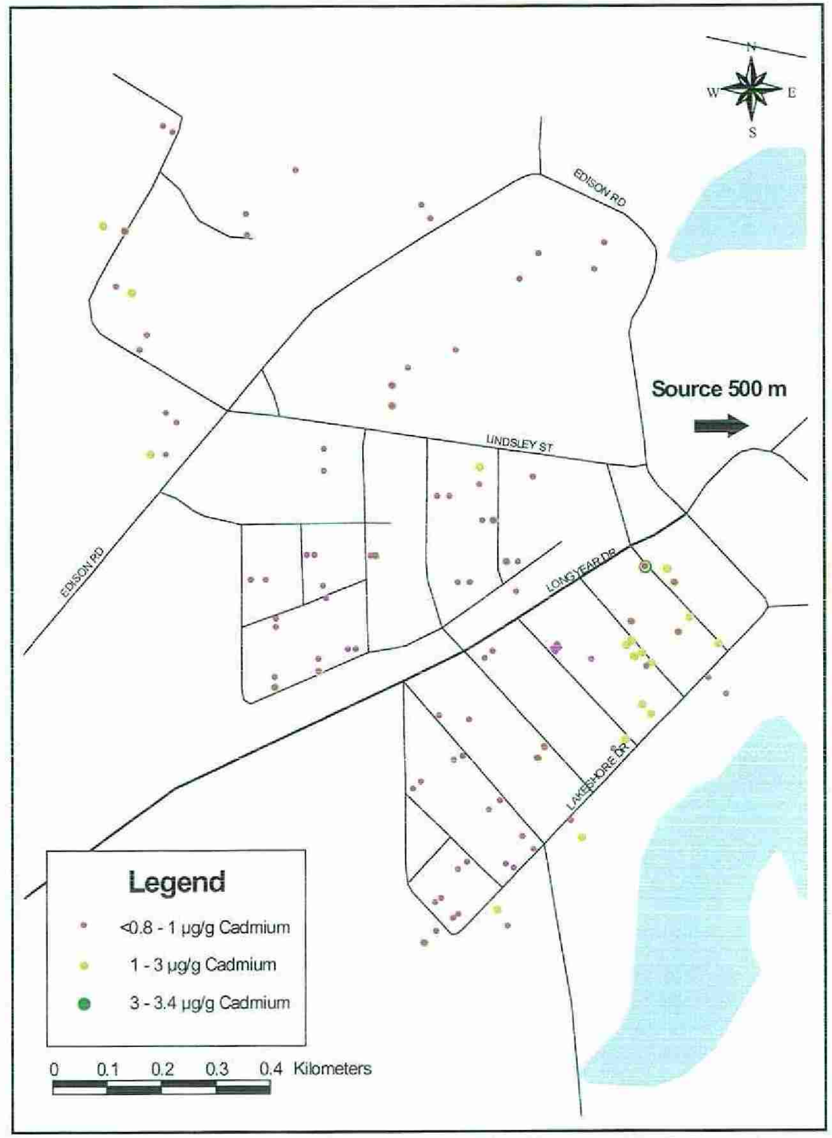
Map 10.2.2.15: Pb concentrations in urban 10 - 20 cm soil in Falconbridge



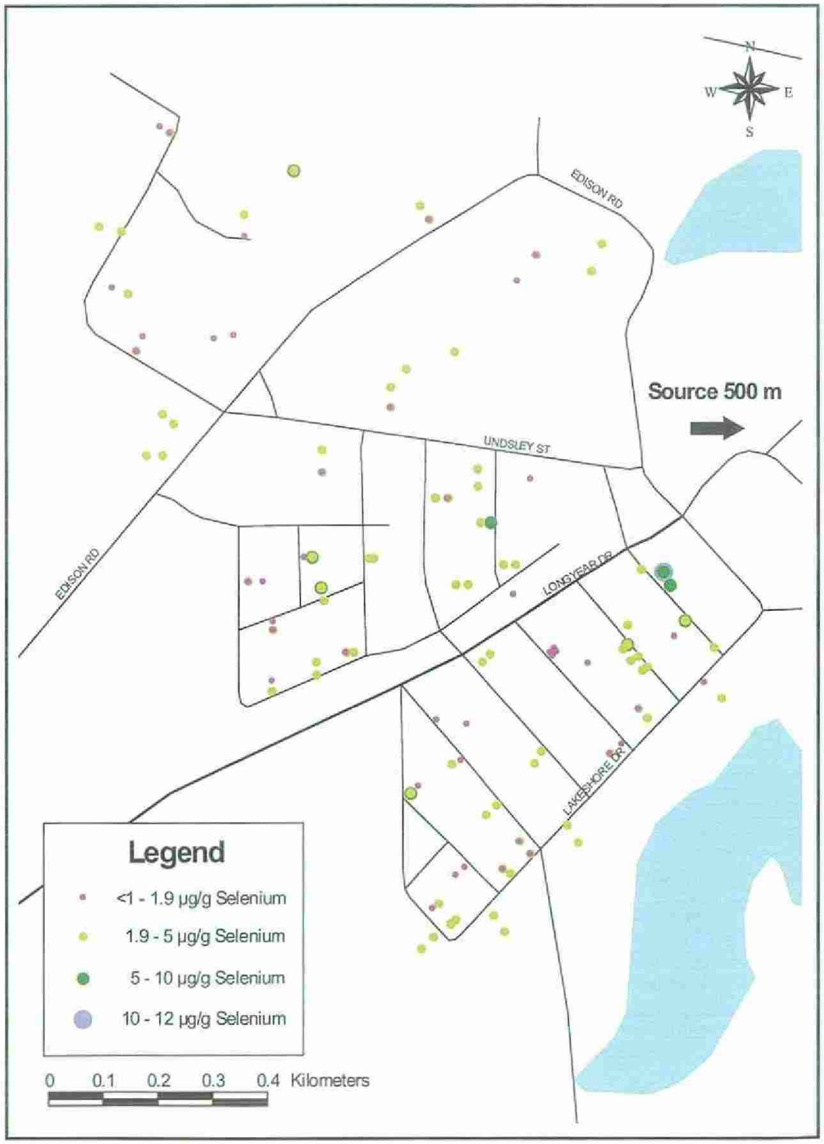
Map 10.2.2.16: Cd concentrations in urban 0 - 5 cm soil in Falconbridge



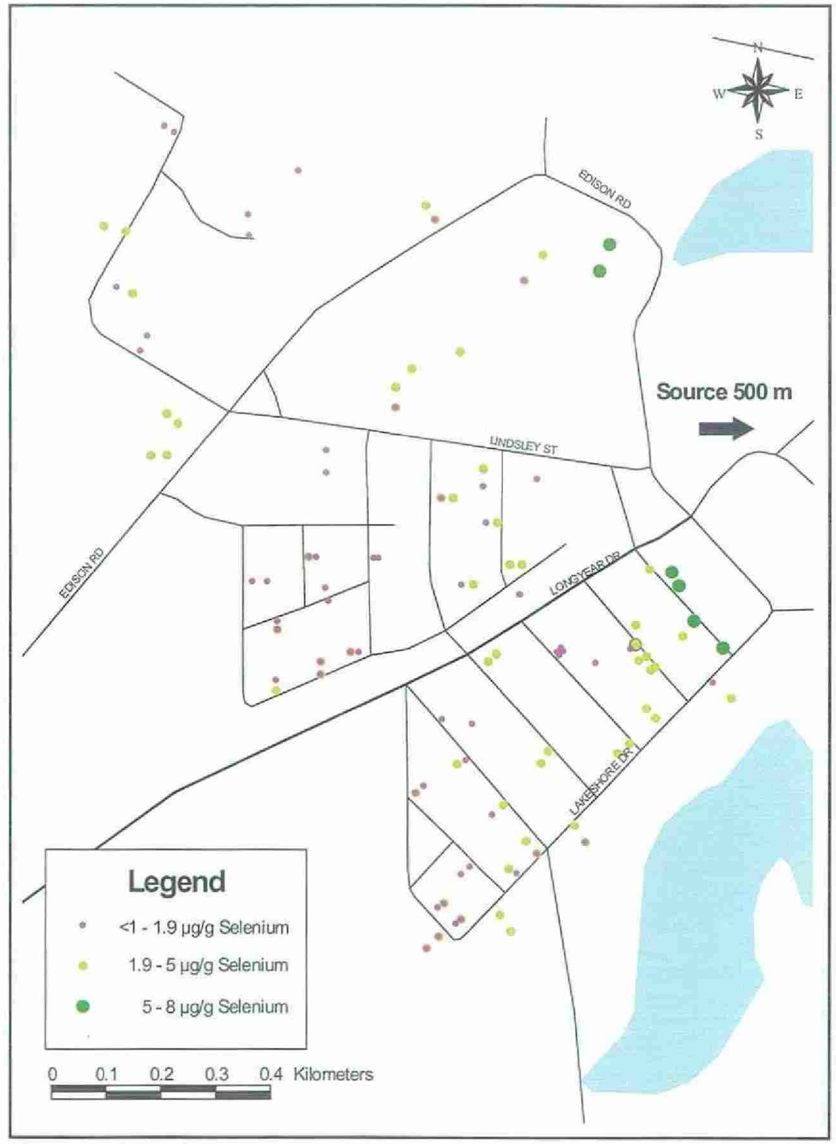
Map 10.2.2.17: Cd concentrations in urban 5 - 10 cm soil in Falconbridge



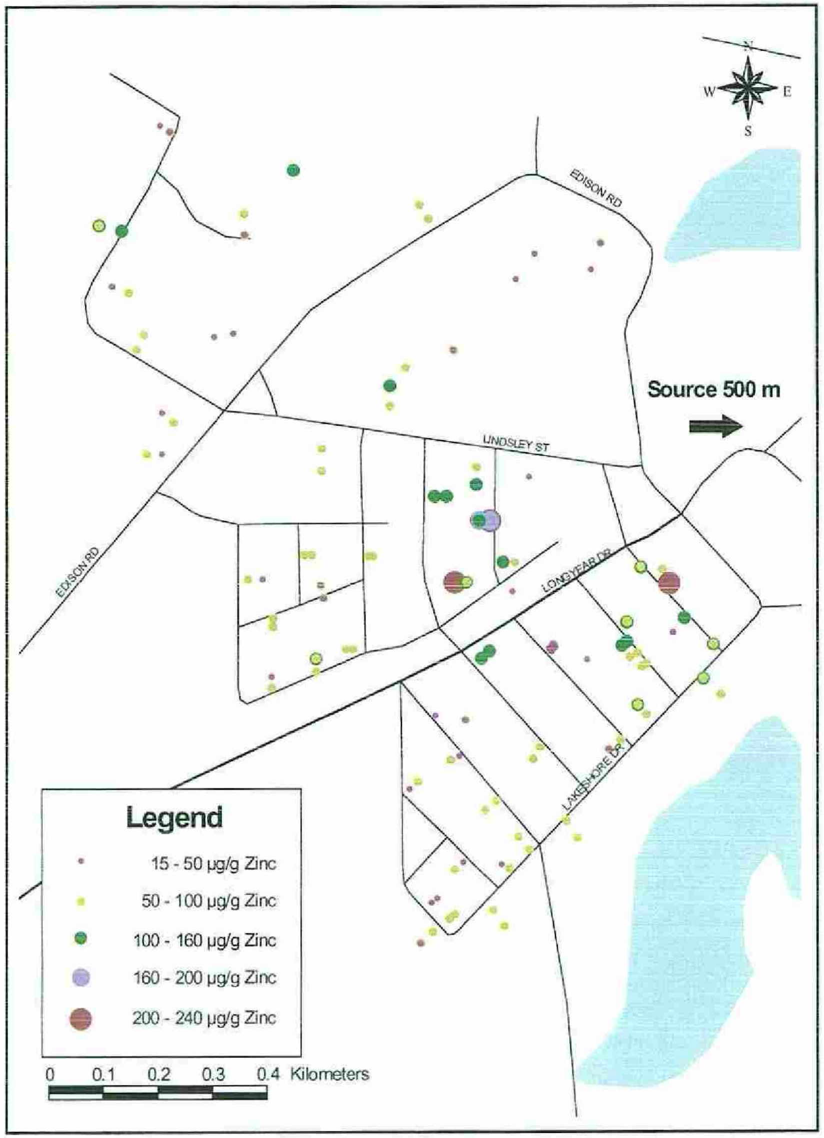
Map 10.2.2.18: Cd concentrations in urban 10 - 20 cm soil in Falconbridge



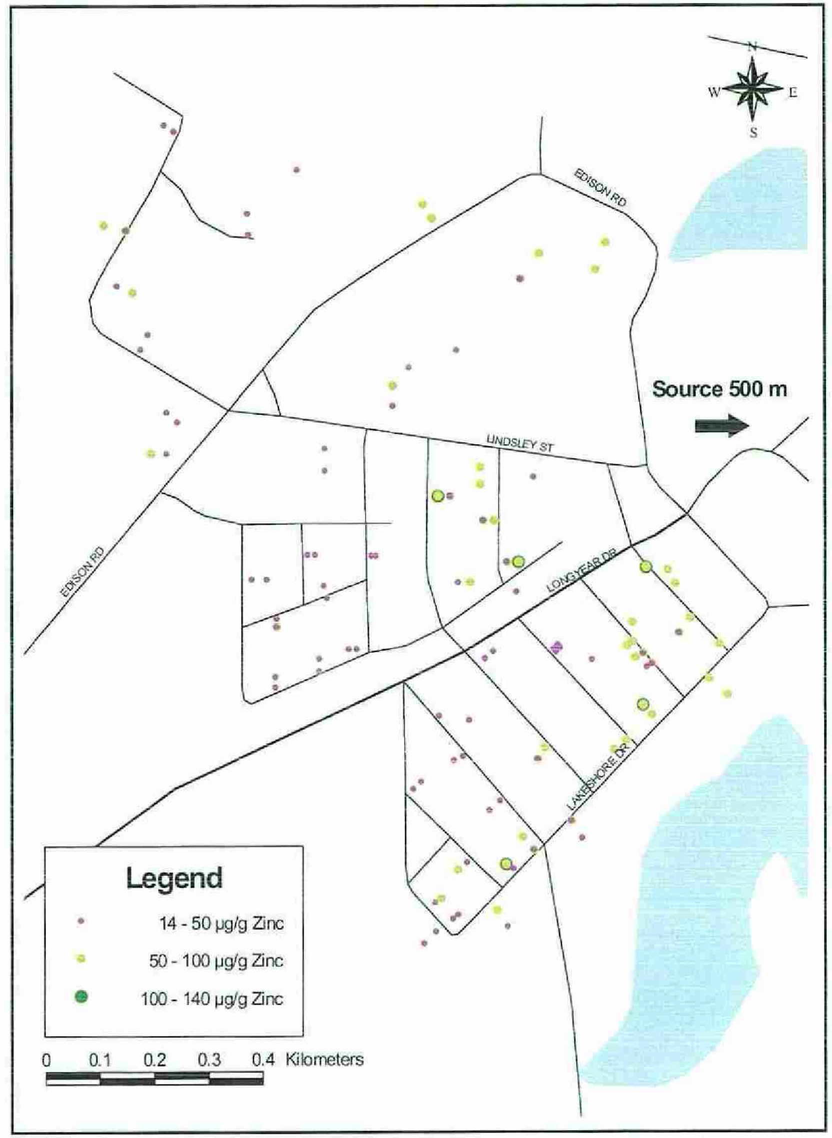
Map 10.2.2.19: Se concentrations in urban 0 - 5 cm soil in Falconbridge



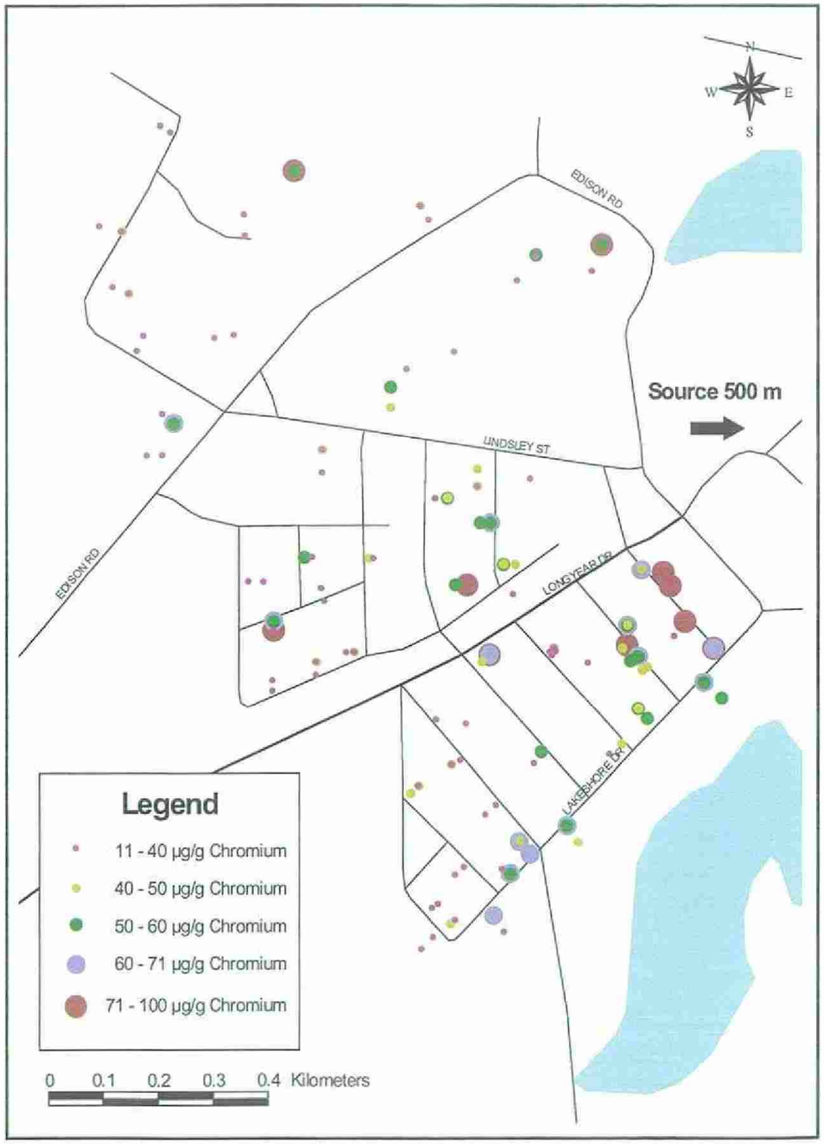
Map 10.2.2.20: Se concentrations in urban 10 - 20 cm soil in Falconbridge



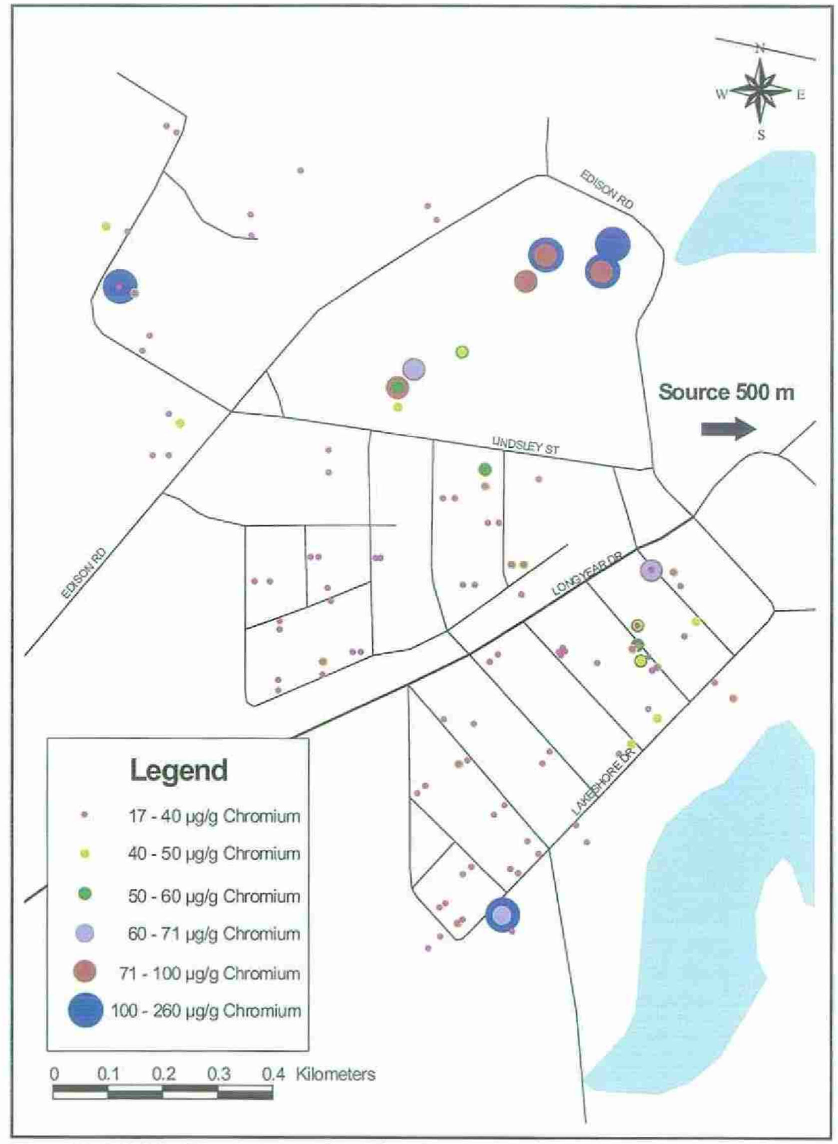
Map 10.2.2.21: Zn concentrations in urban 0 - 5 cm soil in Falconbridge



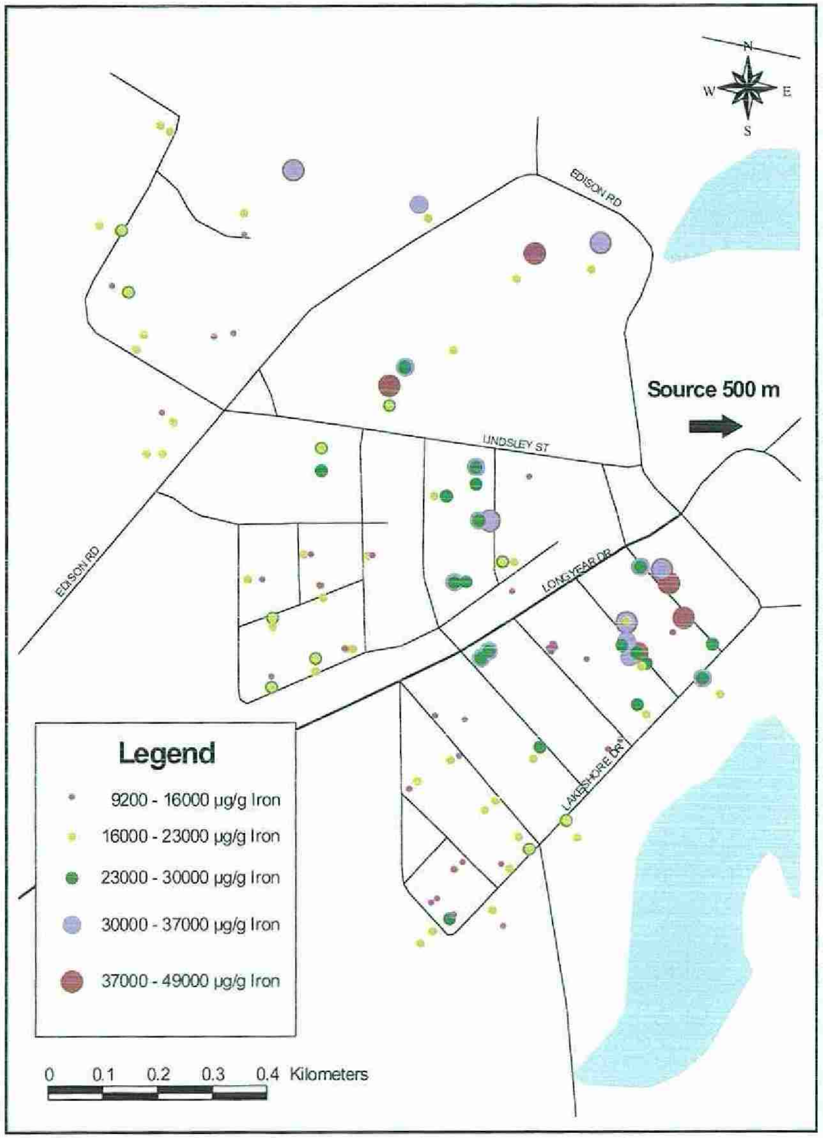
Map 10.2.2.22: Zn concentrations in urban 0 - 5 cm soil in Falconbridge



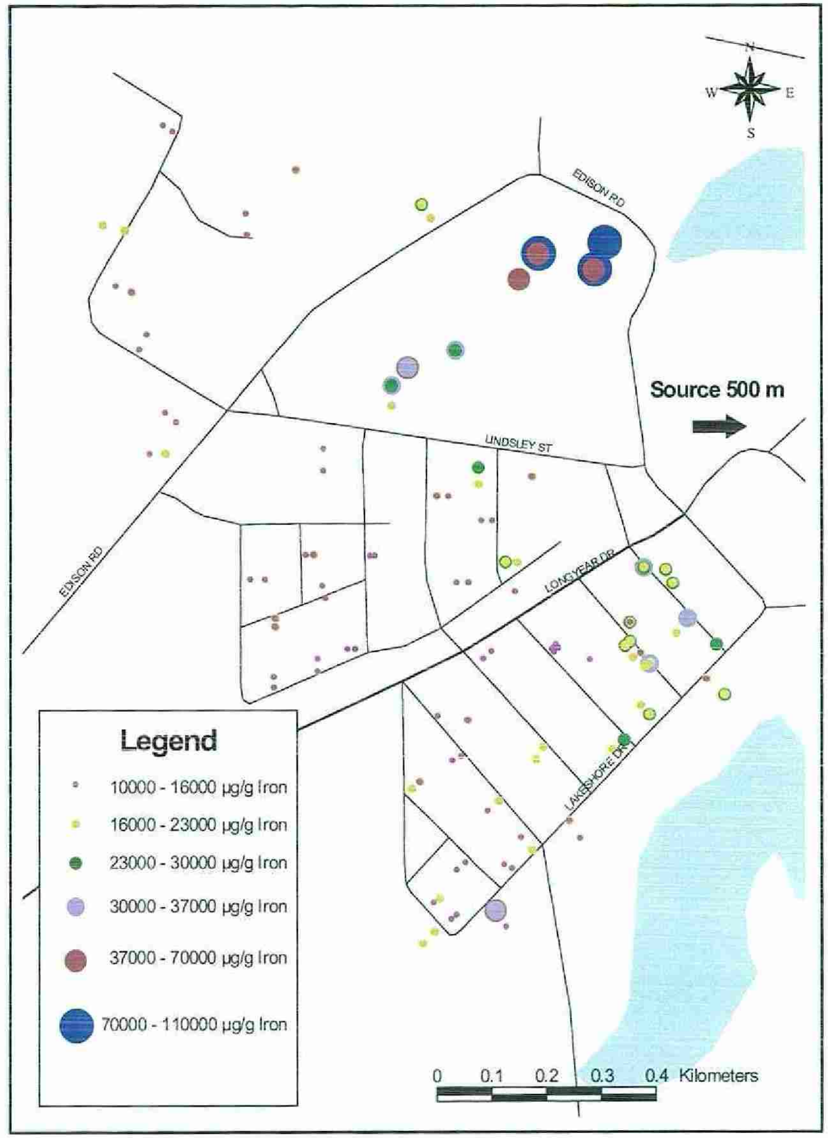
Map 10.2.2.23: Cr concentrations in urban 0 - 5 cm soil in Falconbridge



Map 10.2.2.24: Cr concentrations in urban 10 - 20 cm soil in Falconbridge

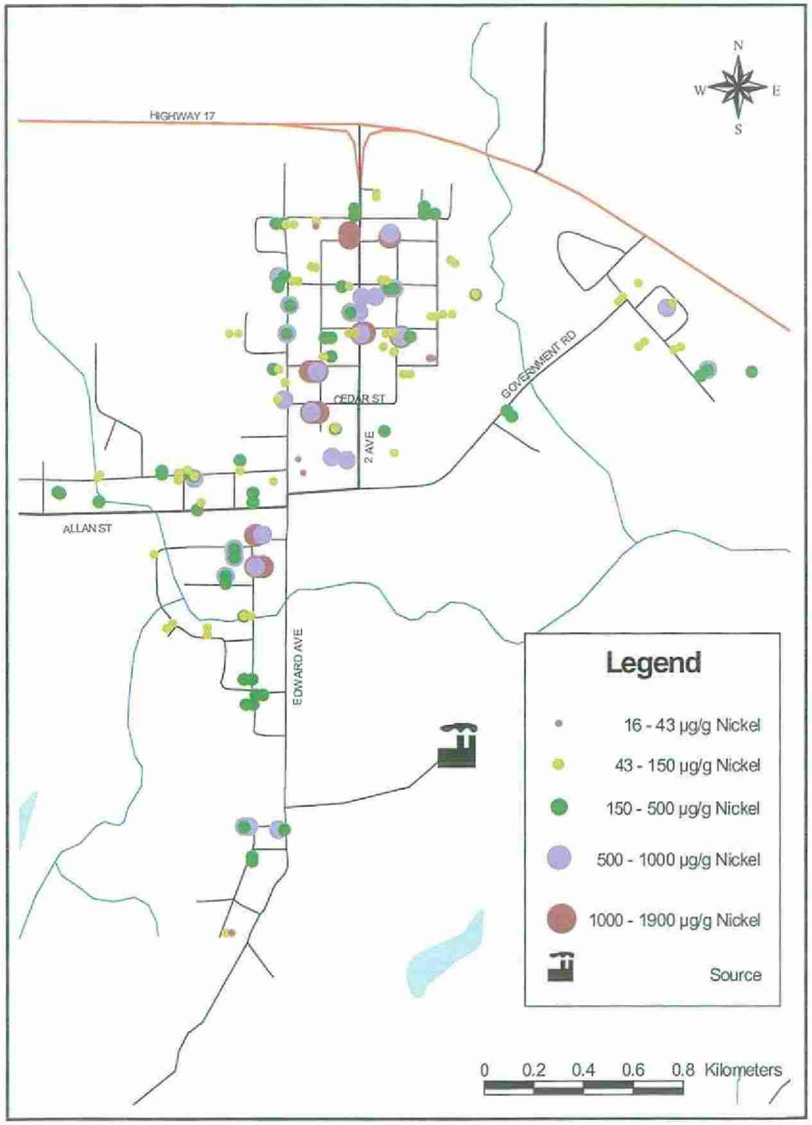


Map 10.2.2.25: Fe concentrations in urban 0 - 5 cm soil in Falconbridge

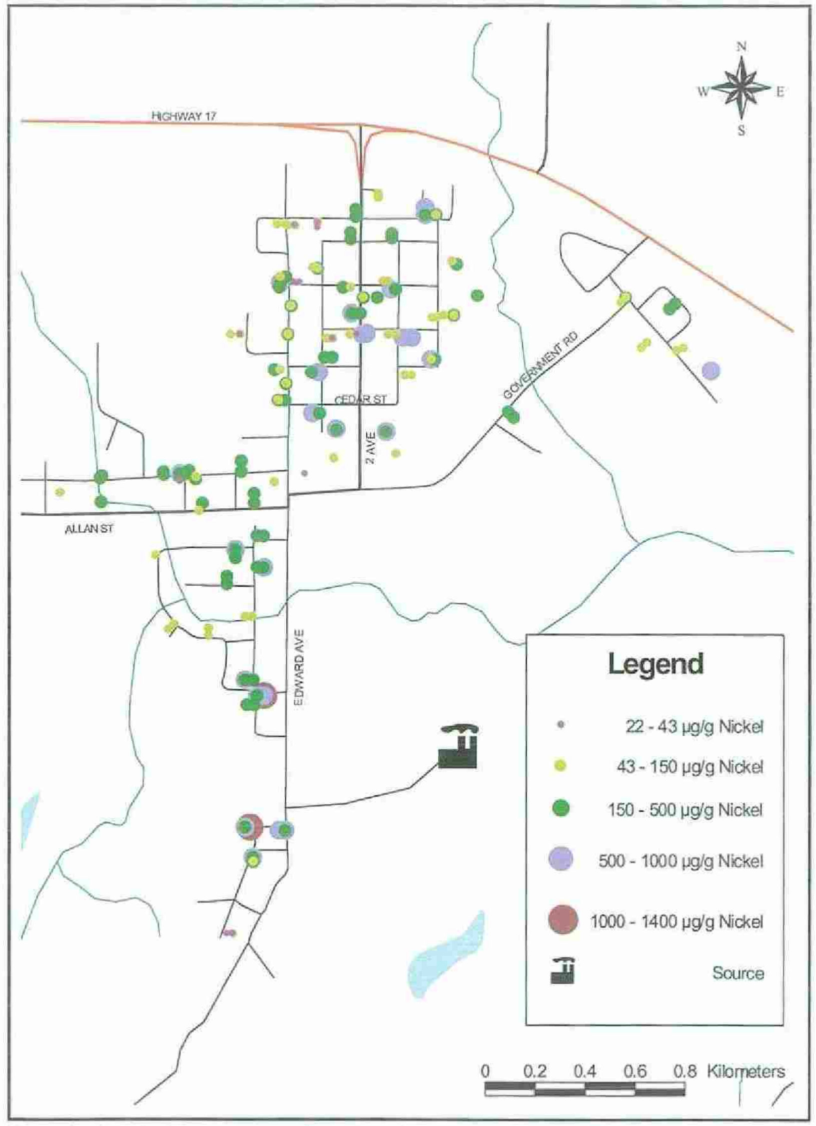


Map 10.2.2.26: Fe concentrations in urban 10 - 20 cm soil in Falconbridge

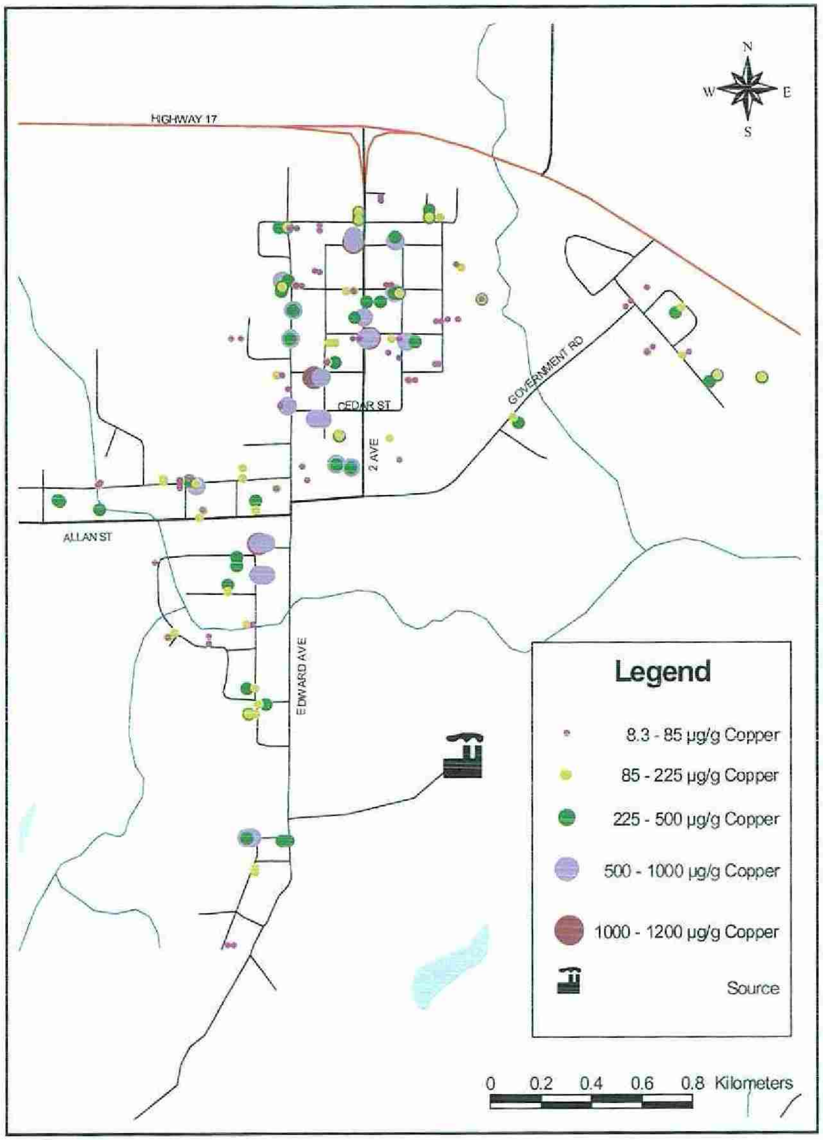
10.2.3 Coniston



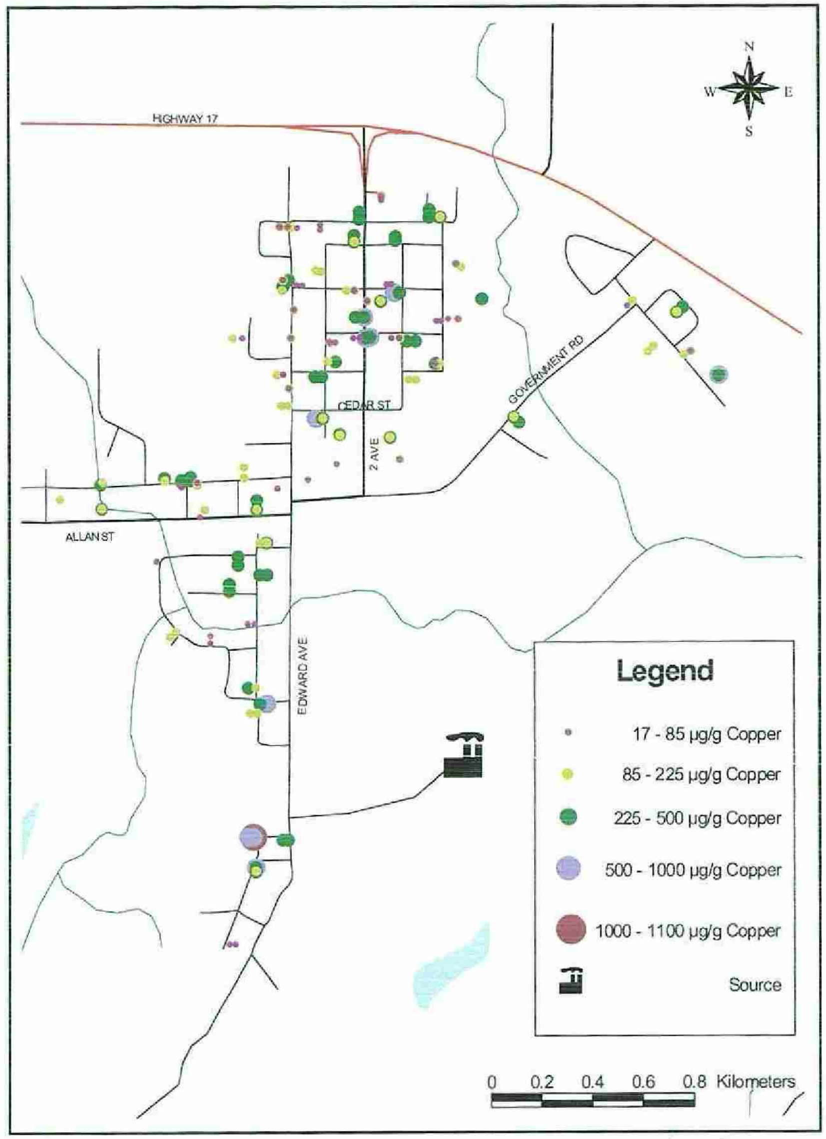
Map 10.2.3.1: Ni concentrations in urban 0 - 5 cm soil in Coniston



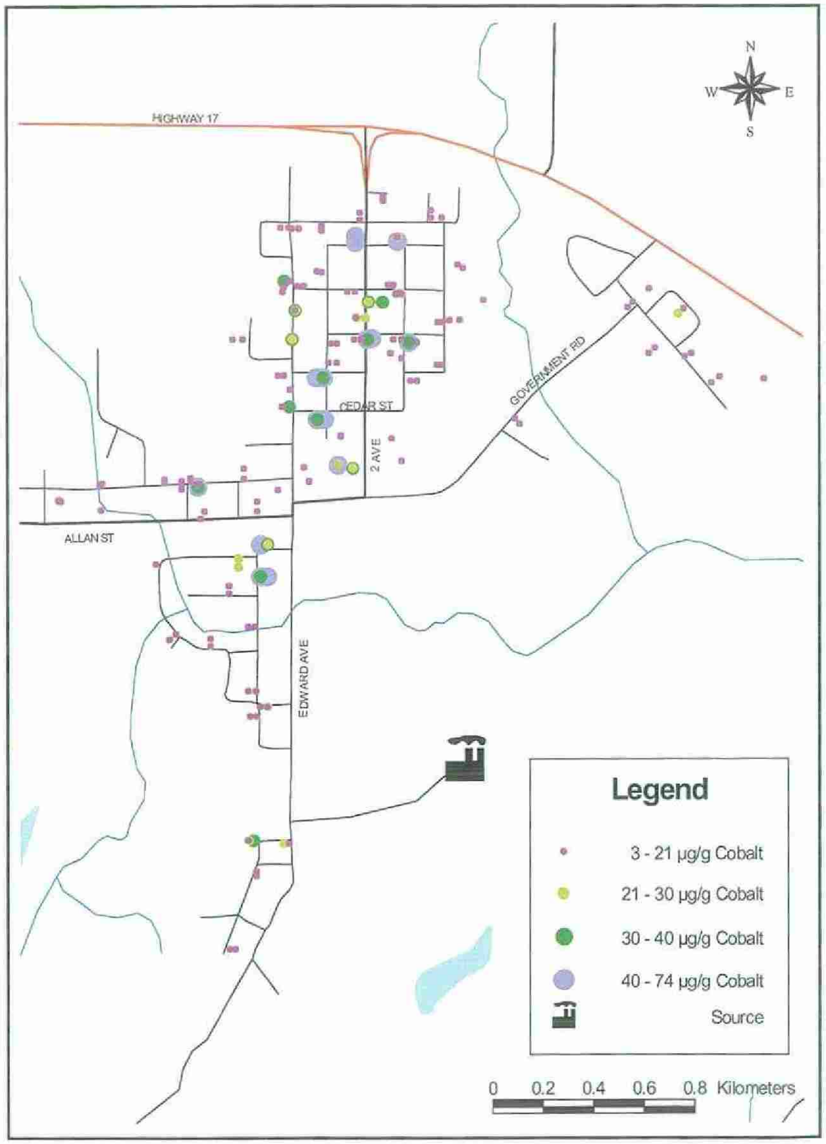
Map 10.2.3.2: Ni concentrations in urban 10 - 20 cm soil in Coniston



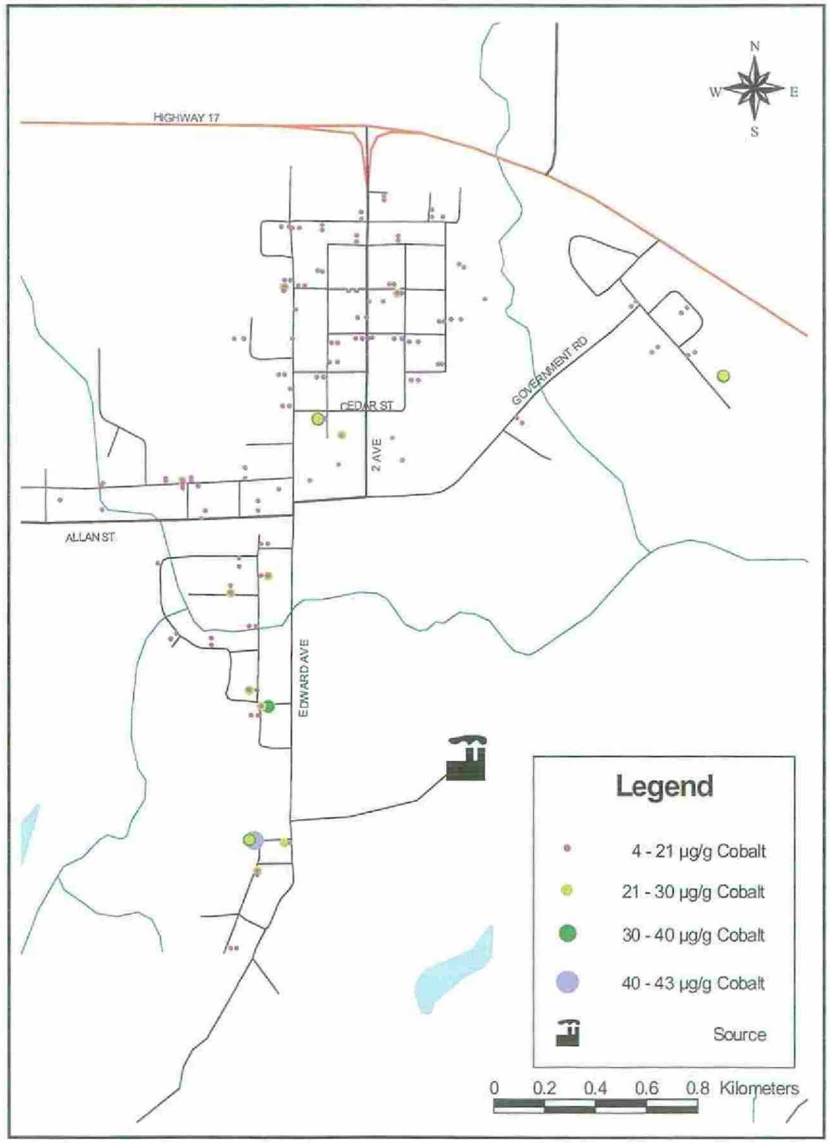
Map 10.2.3.3: Cu concentrations in urban 0 - 5 cm soil in Coniston



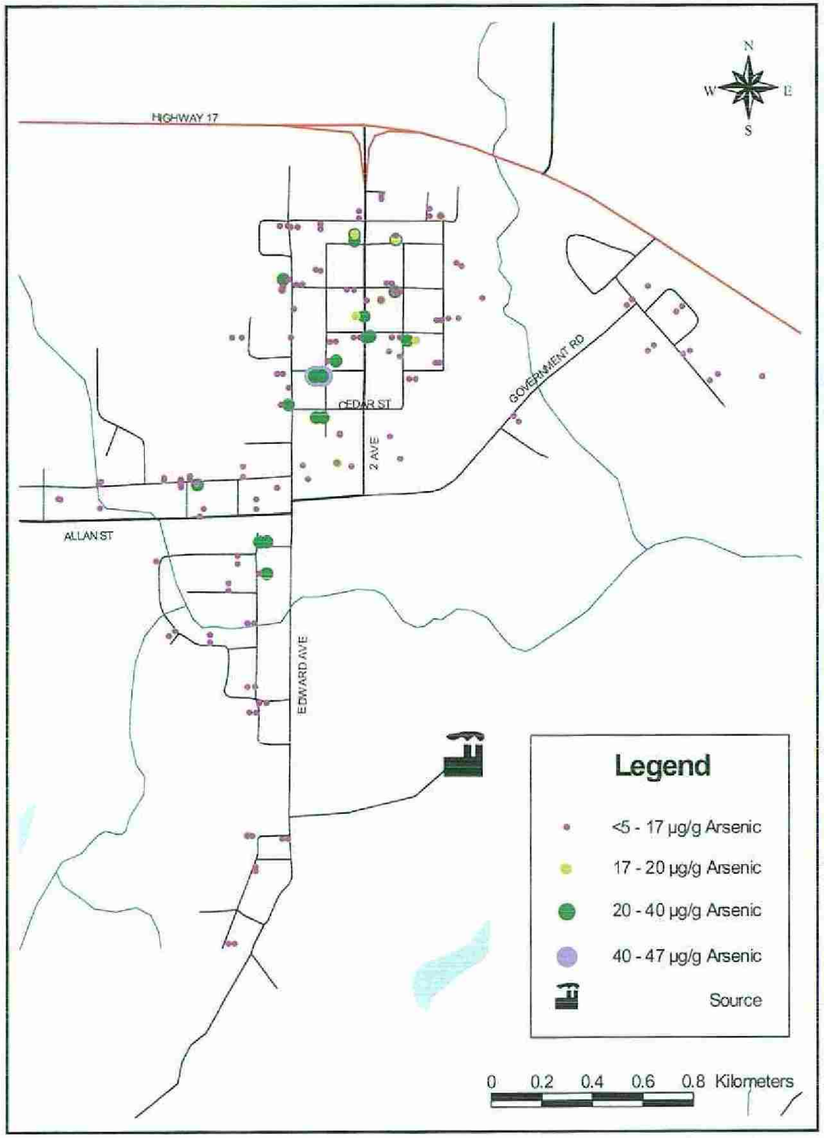
Map 10.2.3.4: Cu concentrations in urban 10 - 20 cm soil in Coniston



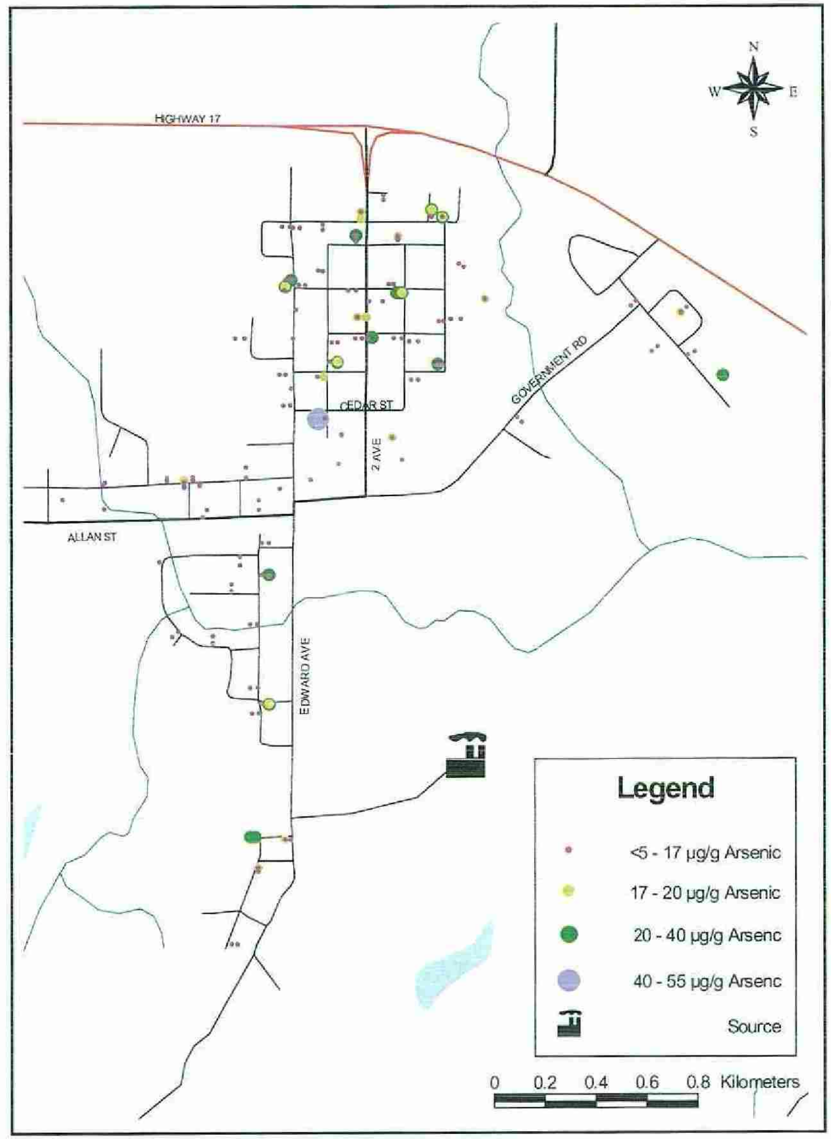
Map 10.2.3.5: Co concentrations in urban 0 - 5 cm soil in Coniston



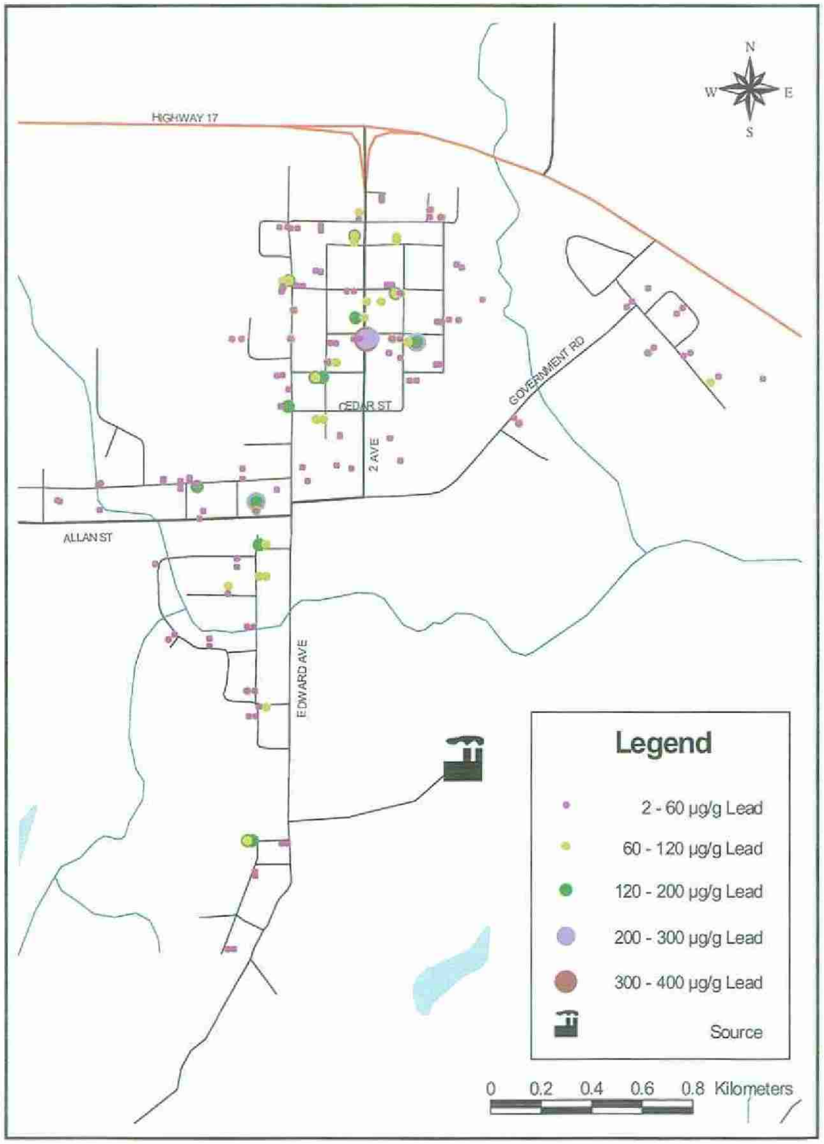
Map 10.2.3.6: Co concentrations in urban 10 - 20 cm soil in Coniston



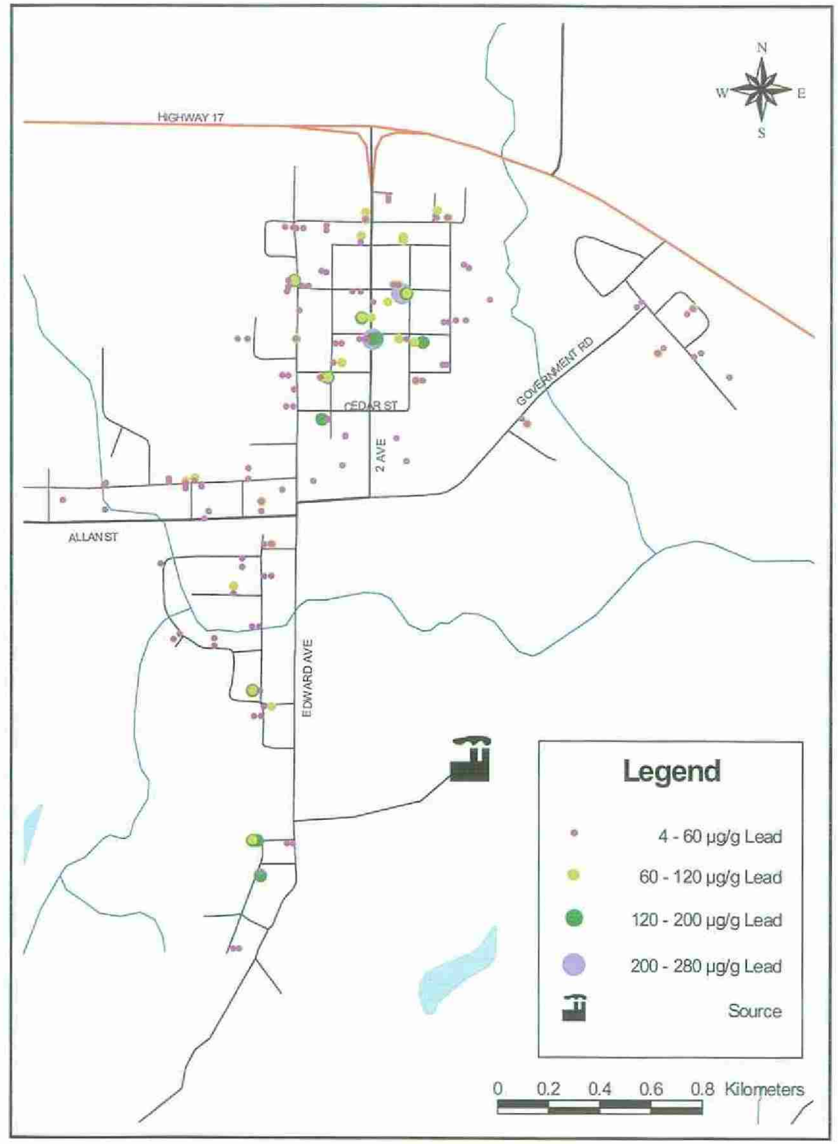
Map 10.2.3.7: As concentrations in urban 0 - 5 cm soil in Coniston



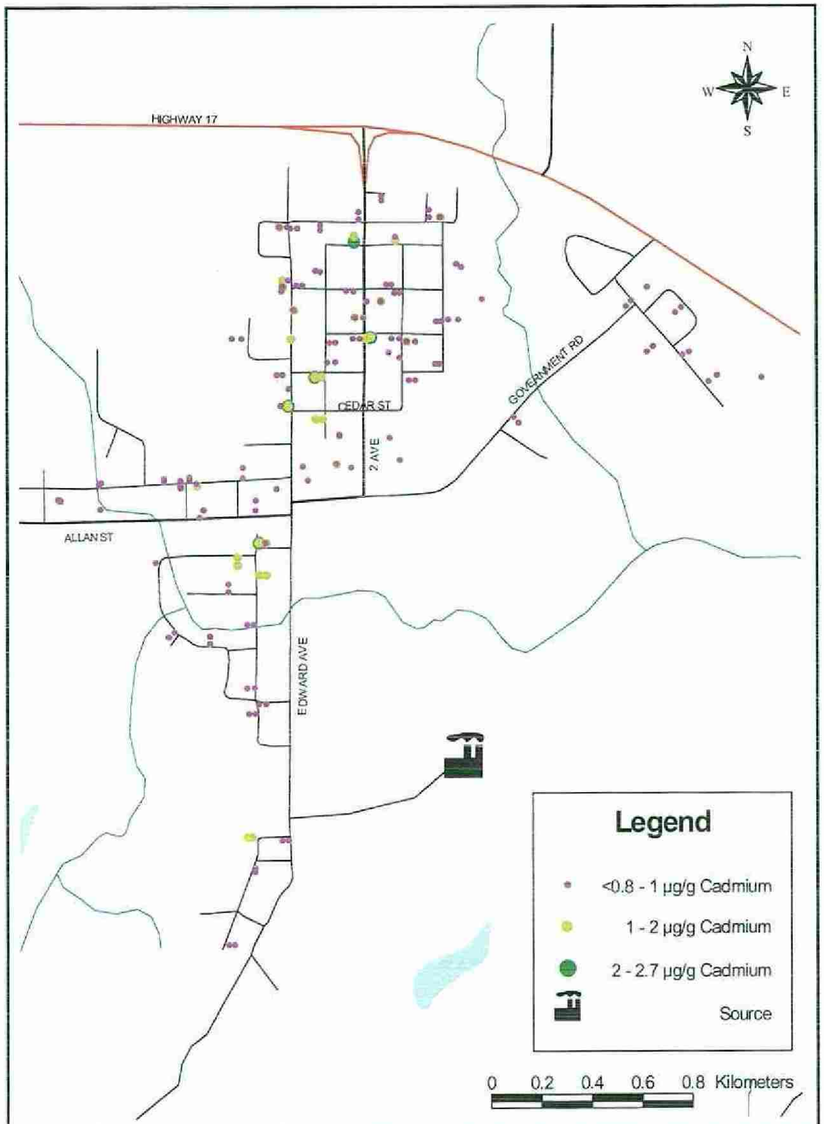
Map 10.2.3.8: As concentrations in urban 10 - 20 cm soil in Coniston



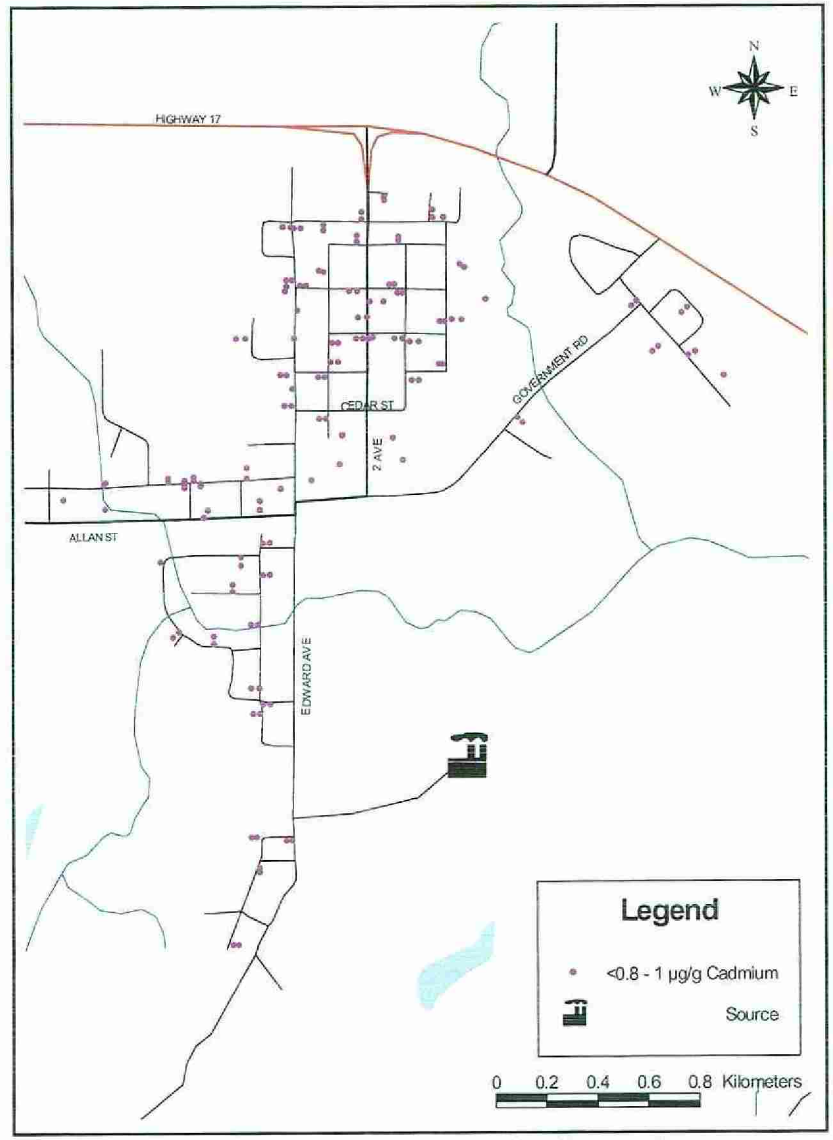
Map 10.2.3.9: Pb concentrations in urban 0 - 5 cm soil in Coniston



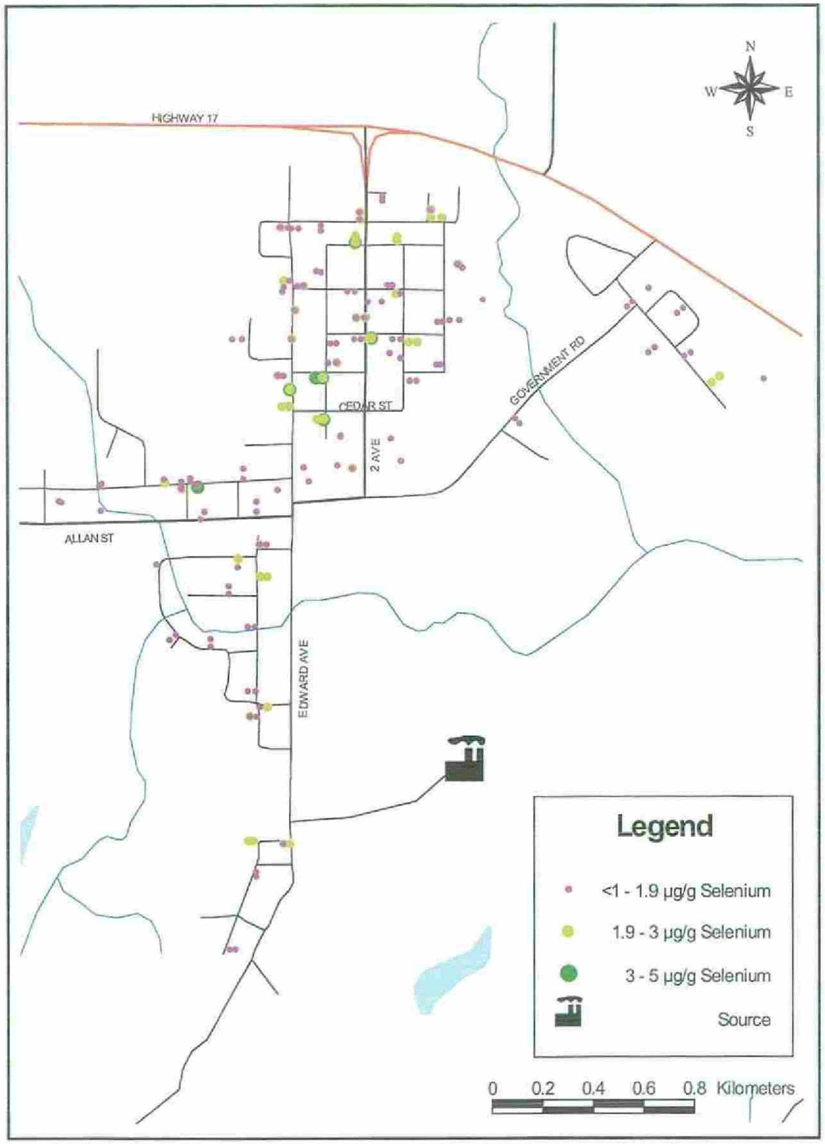
Map 10.2.3.10: Pb concentrations in urban 10 - 20 cm soil in Coniston



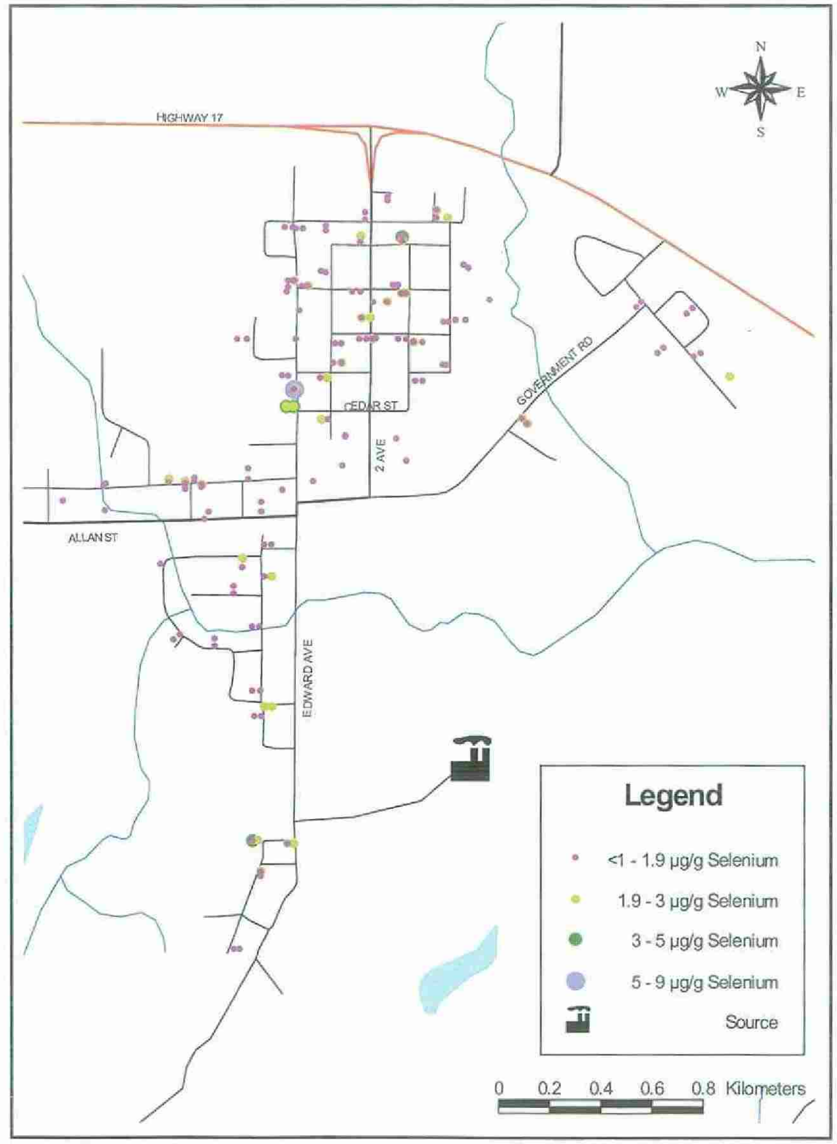
Map 10.2.3.11: Cd concentrations in urban 0 - 5 cm soil in Coniston



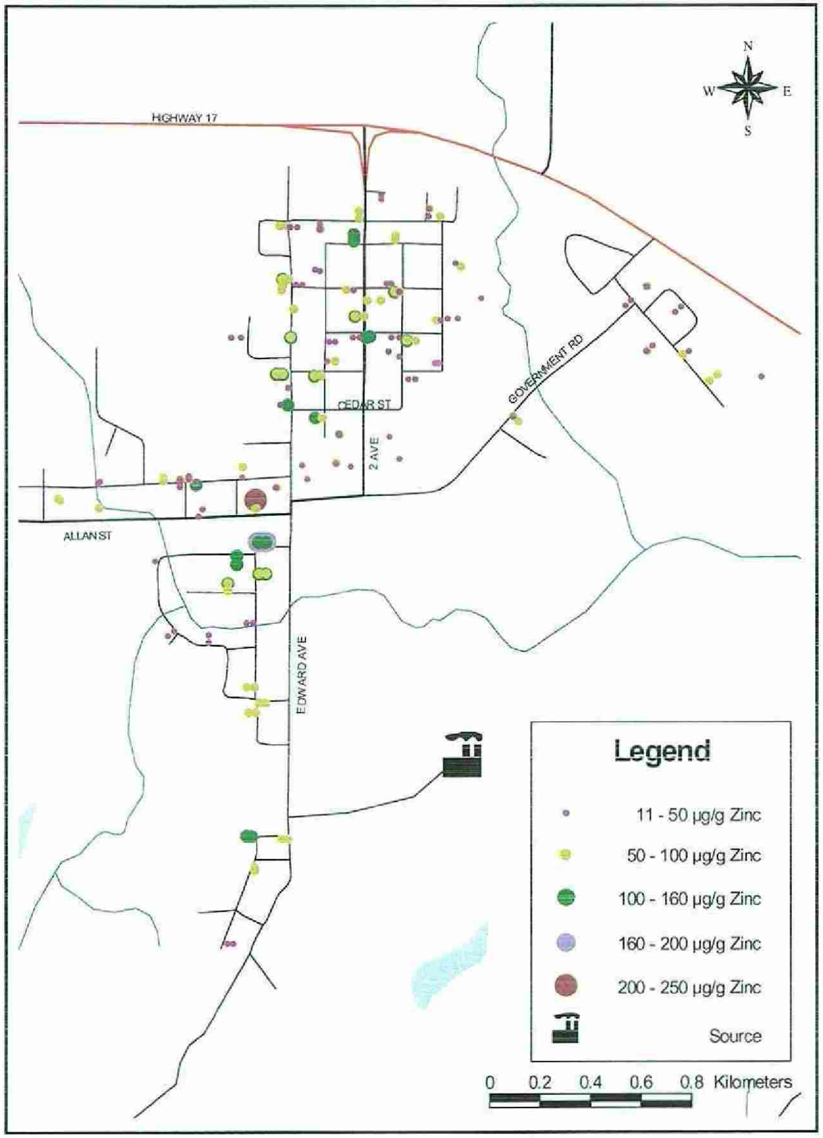
Map 10.2.3.12: Cd concentrations in urban 10 - 20 cm soil in Coniston



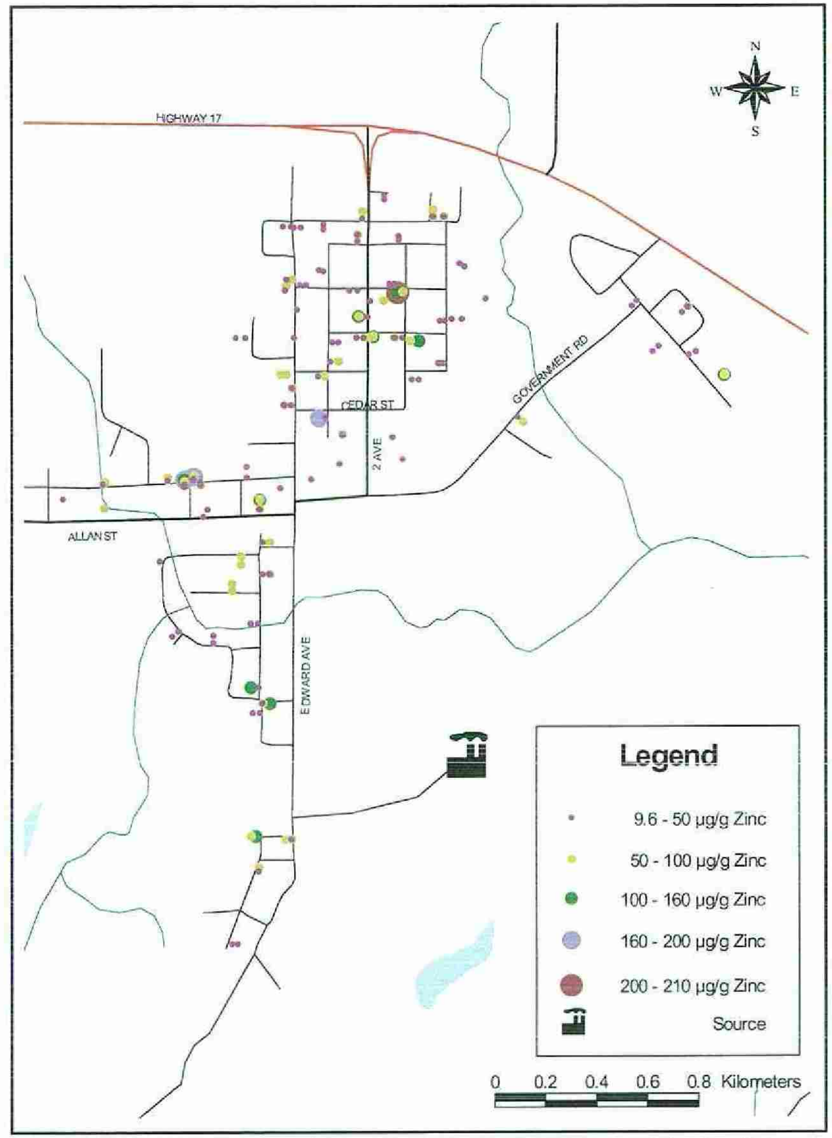
Map 10.2.3.13: Se concentrations in urban 0 - 5 cm soil in Coniston



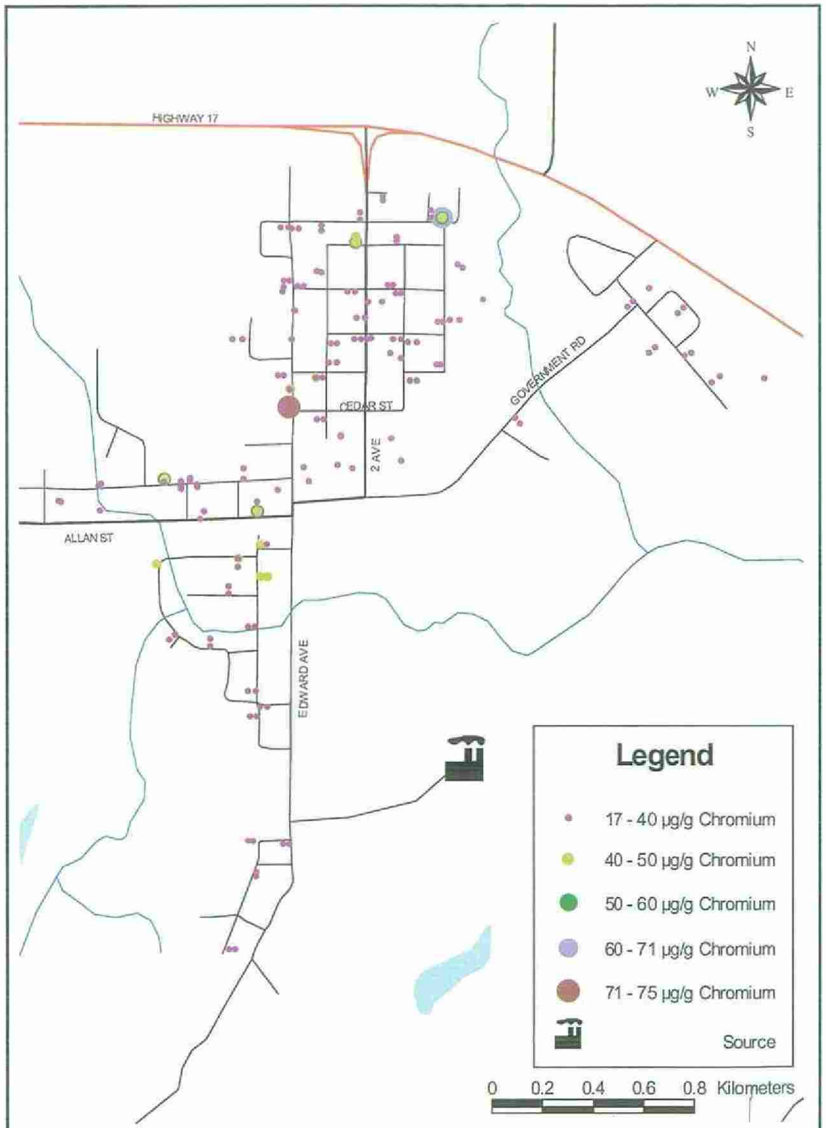
Map 10.2.3.14: Se concentrations in urban 10 - 20 cm soil in Coniston



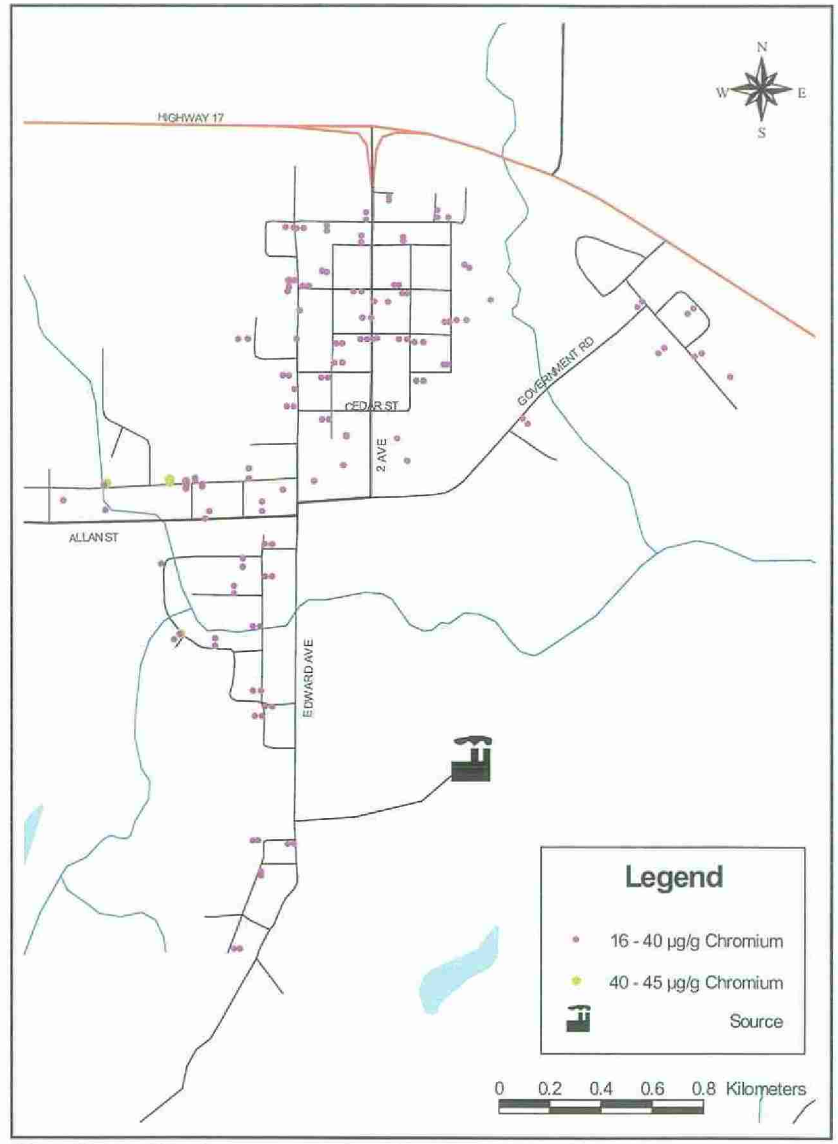
Map 10.2.3.15: Zn concentrations in urban 0 - 5 cm soil in Coniston



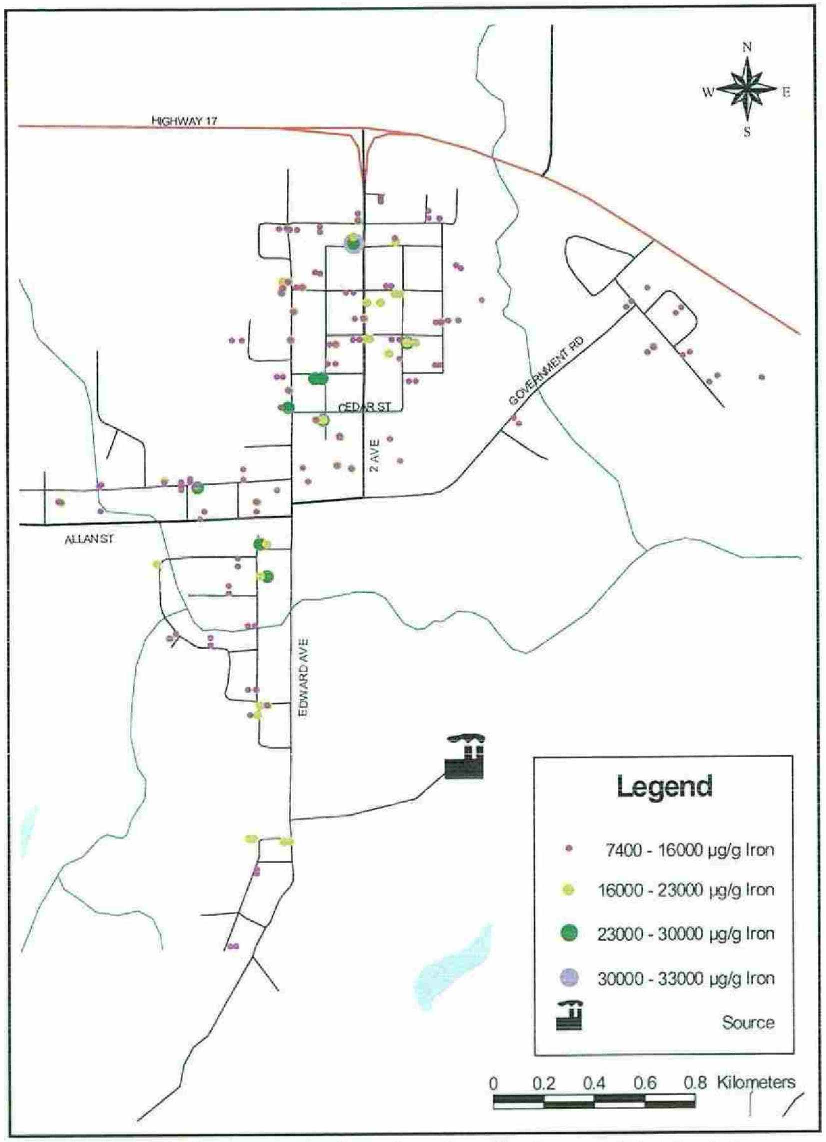
Map 10.2.3.16: Zn concentrations in urban 10 - 20 cm soil in Coniston



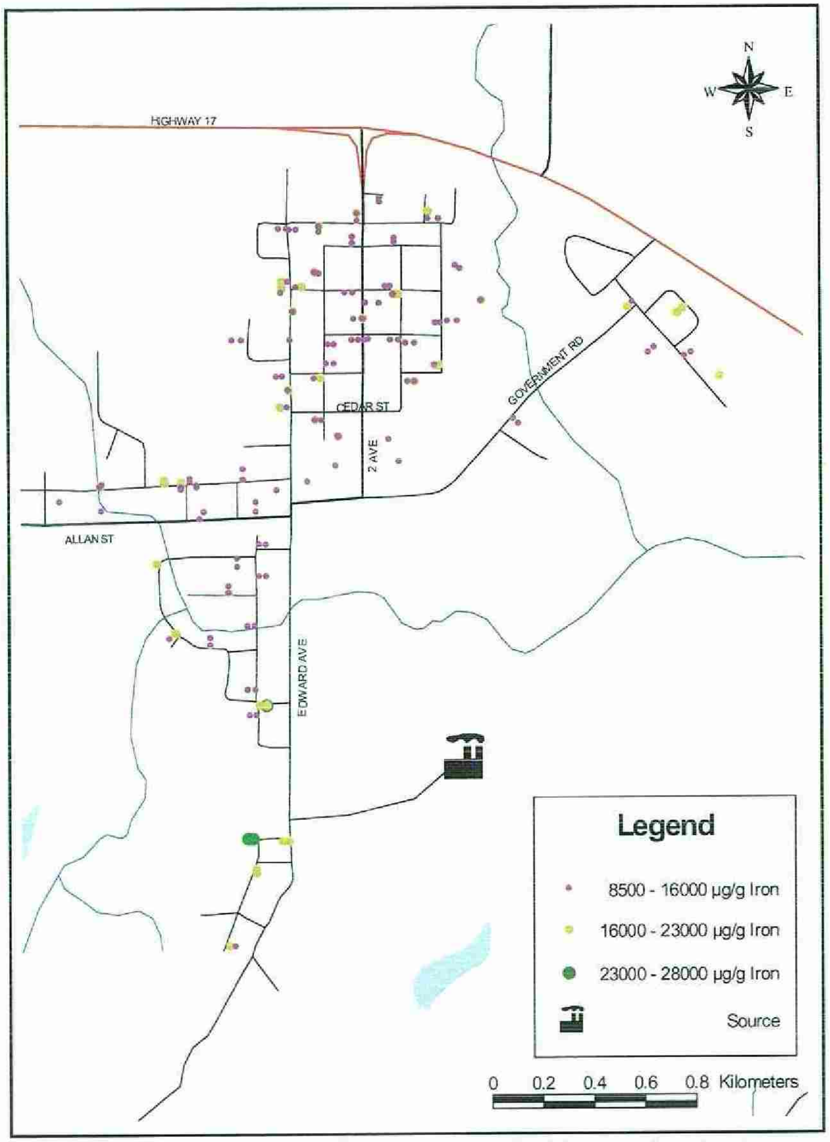
Map 10.2.3.17: Cr concentrations in urban 0 - 5 cm soil in Coniston



Map 10.2.3.18: Cr concentrations in urban 10 - 20 cm soil in Coniston

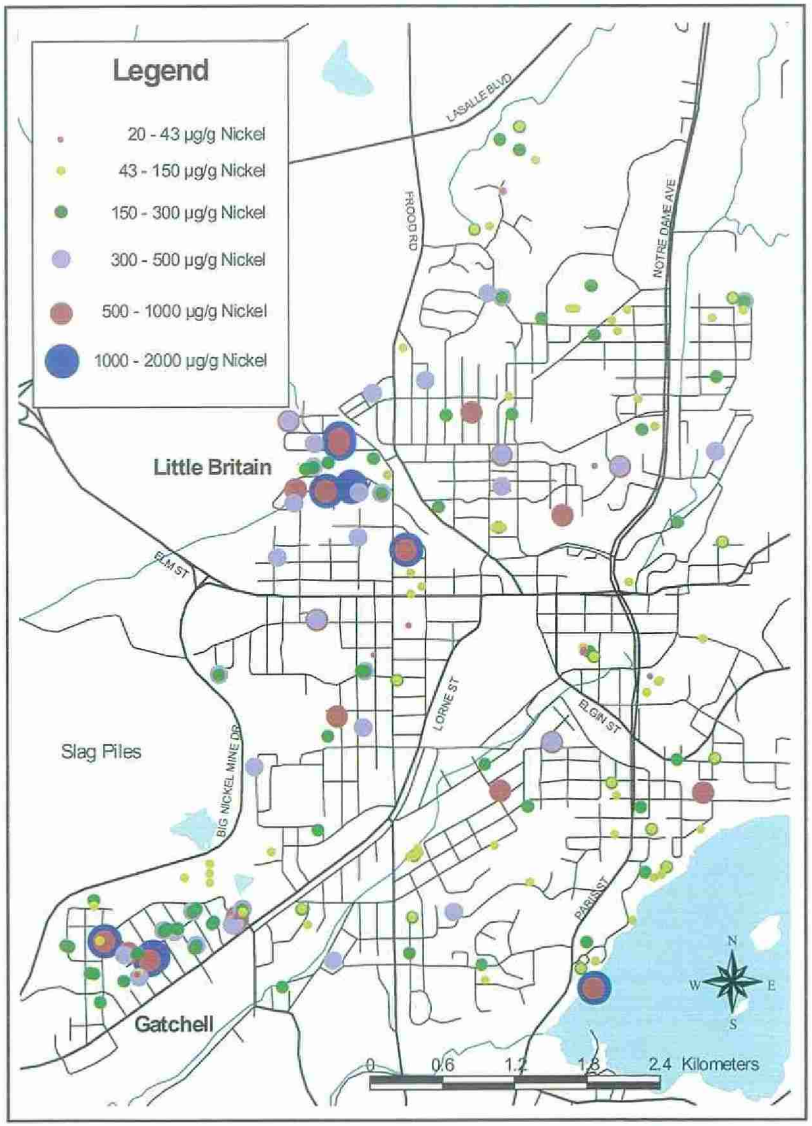


Map 10.2.3.19: Fe concentrations in urban 0 - 5 cm soil in Coniston

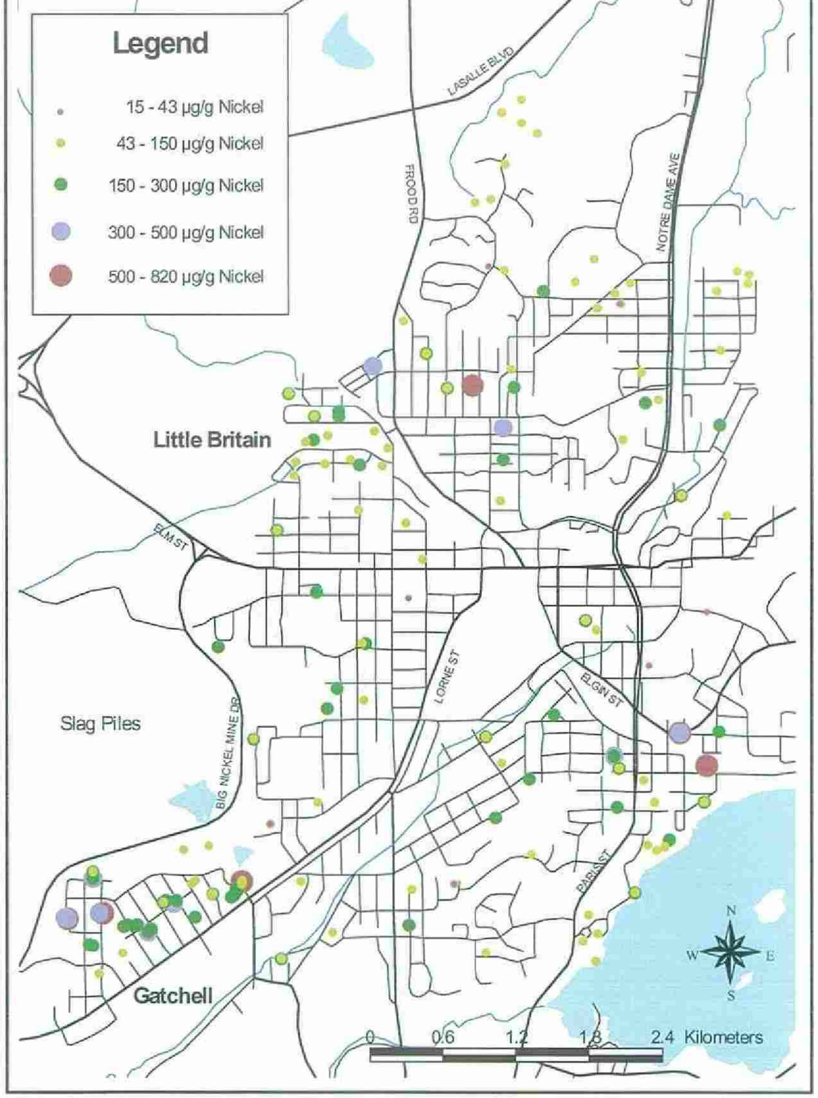


Map 10.2.3.20: Fe concentrations in urban 10 - 20 cm soil in Coniston

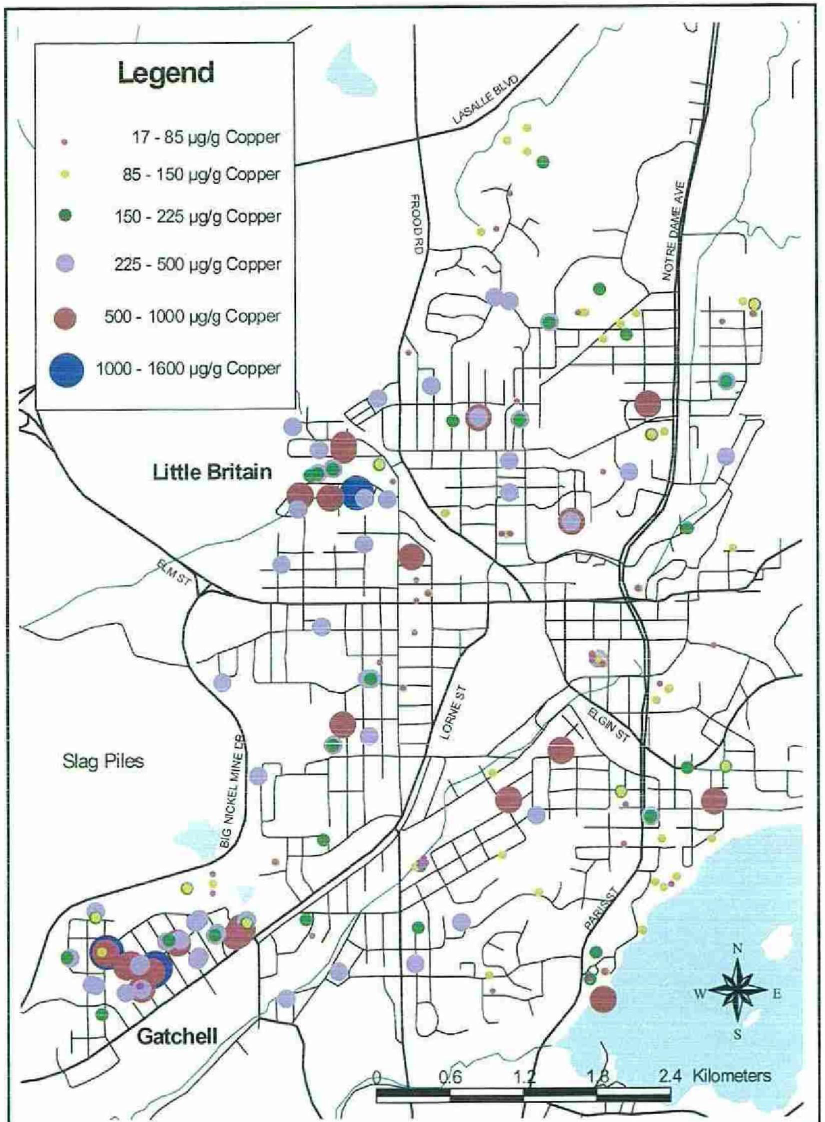
10.2.4 Sudbury Core



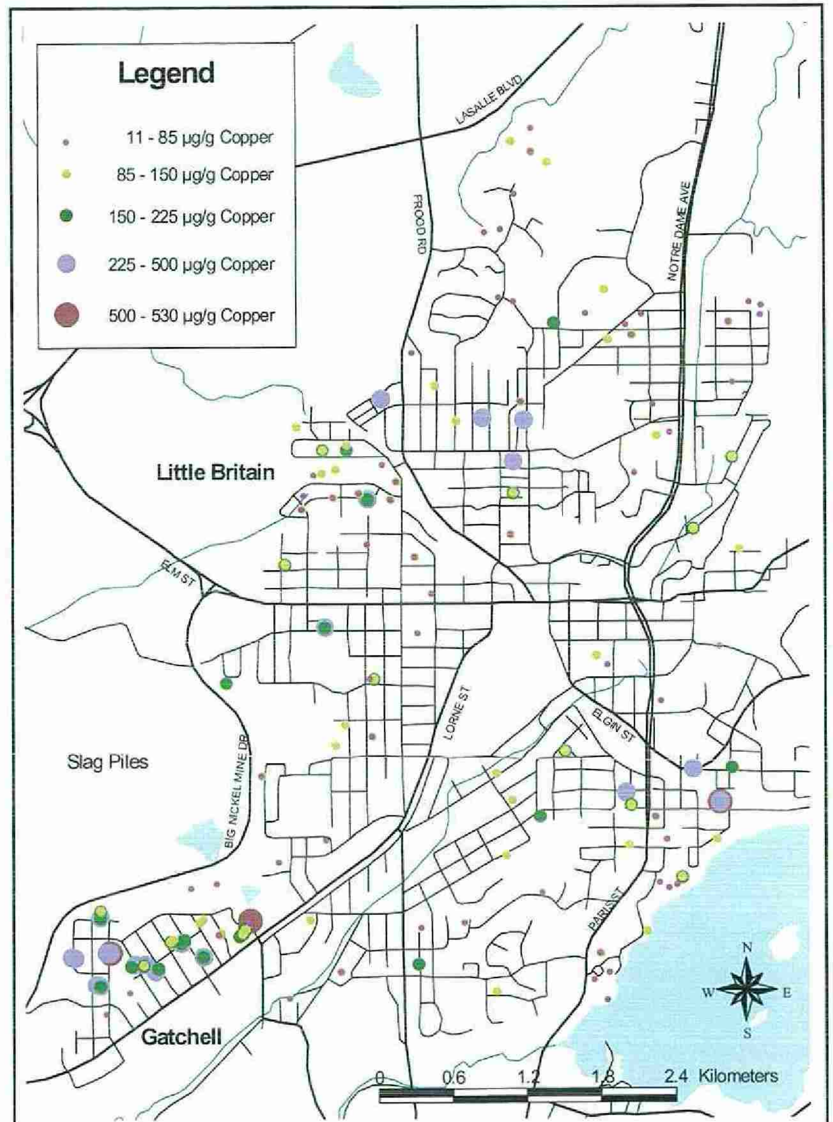
Map 10.2.4.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury Core



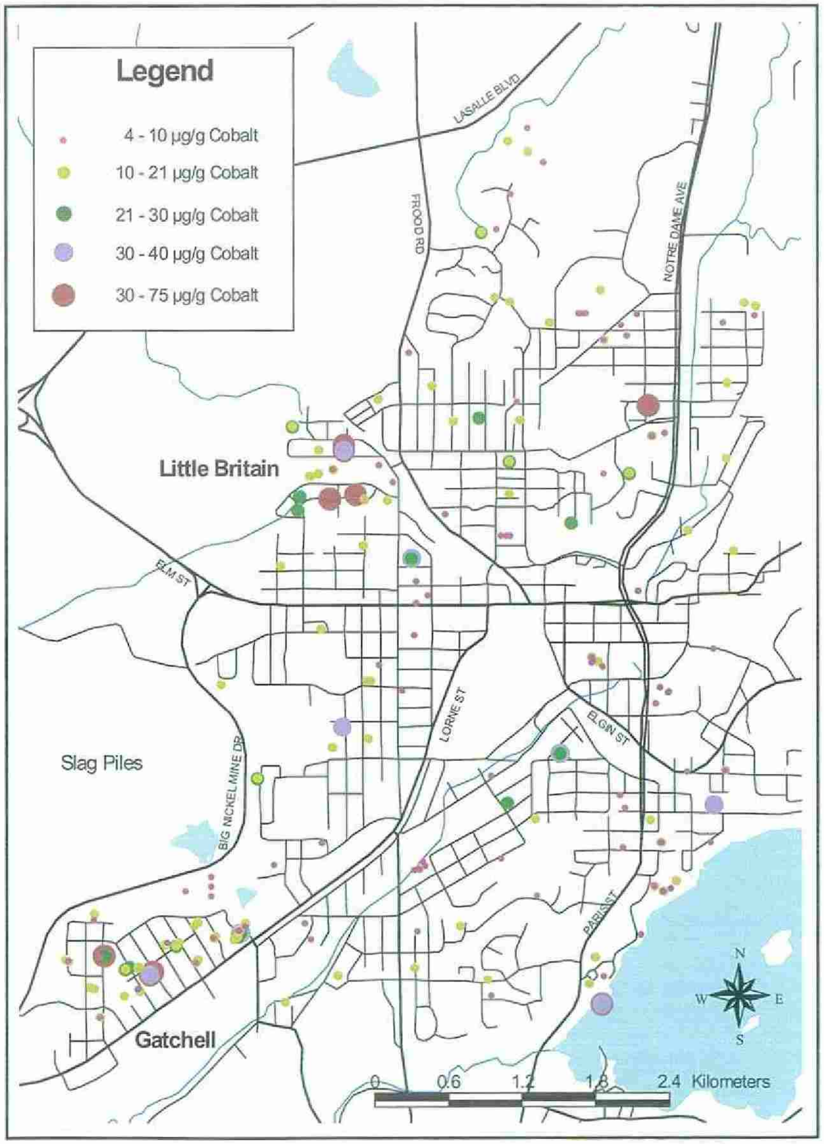
Map 10.2.4.2: Ni concentrations in urban 10 - 20 cm soil in Sudbury Core



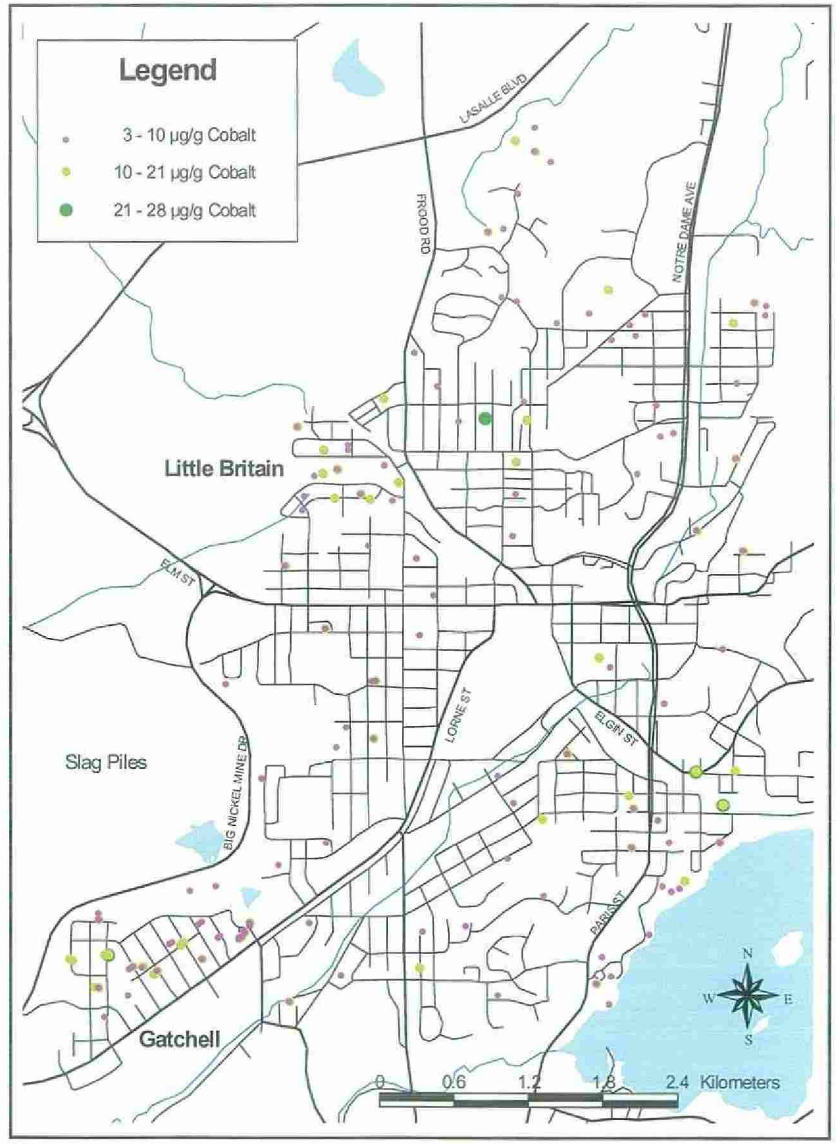
Map 10.2.4.3: Cu concentrations in urban 0 - 5 cm soil in Sudbury Core



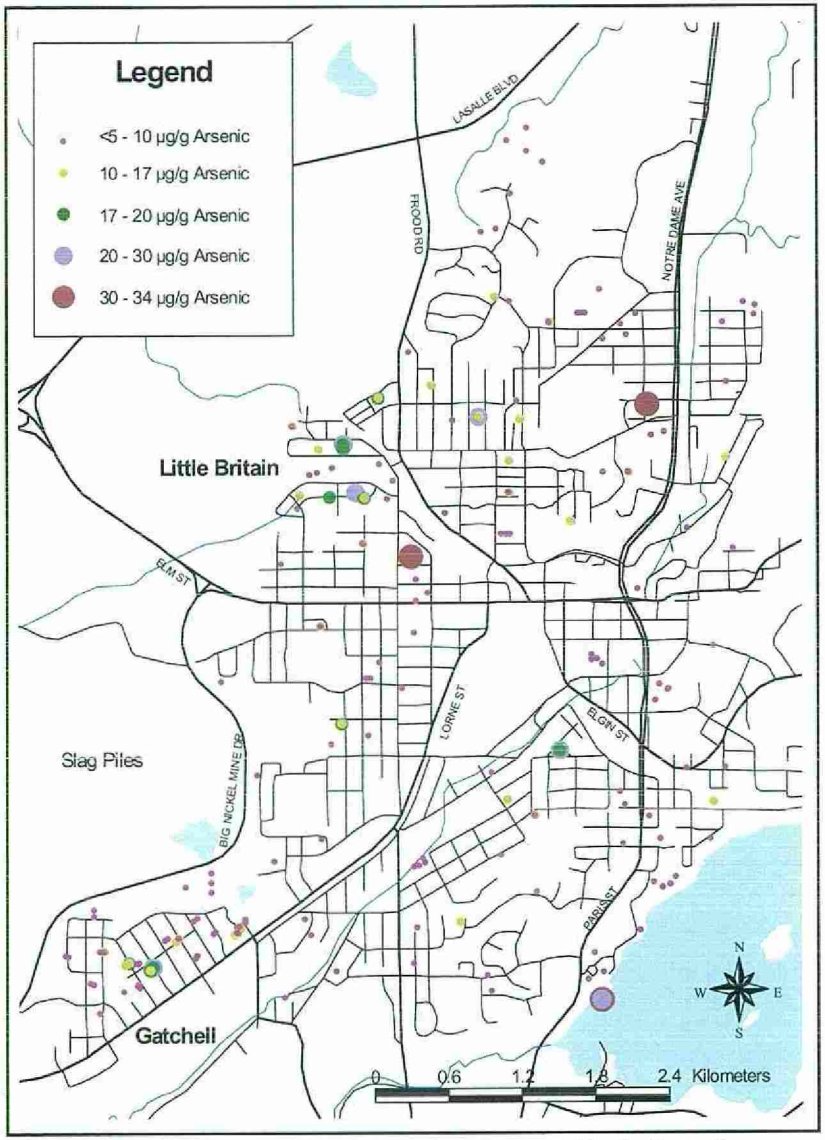
Map 10.2.4.4: Cu concentrations in urban 10 - 20 cm soil in Sudbury Core



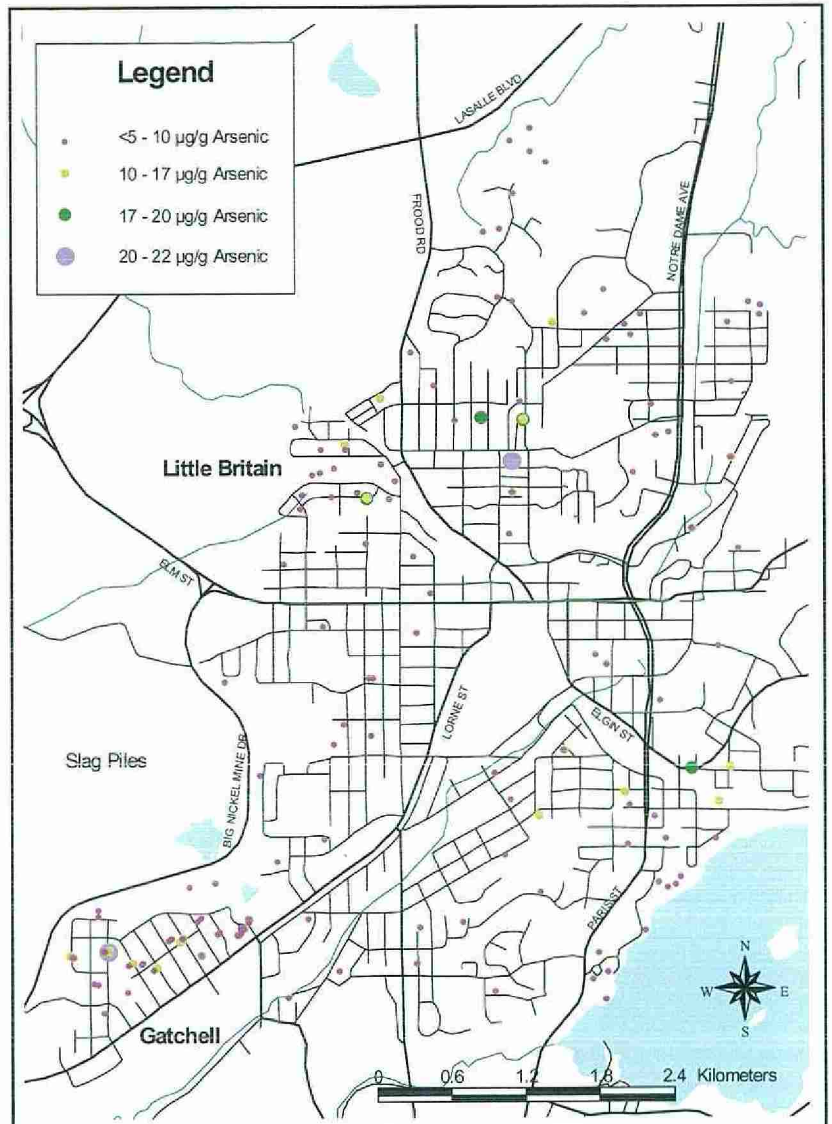
Map 10.2.4.5: Co concentrations in urban 0 - 5 cm soil in Sudbury Core



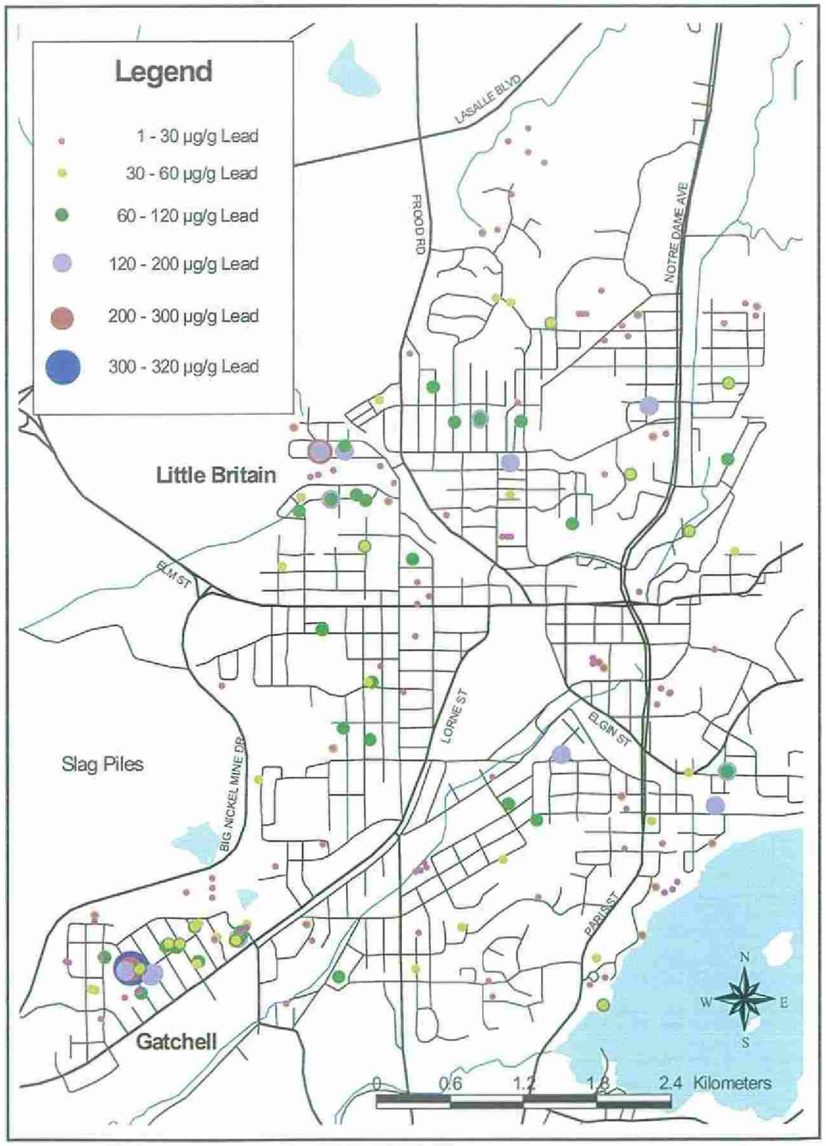
Map 10.2.4.6: Co concentrations in urban 10 - 20 cm in Sudbury Core



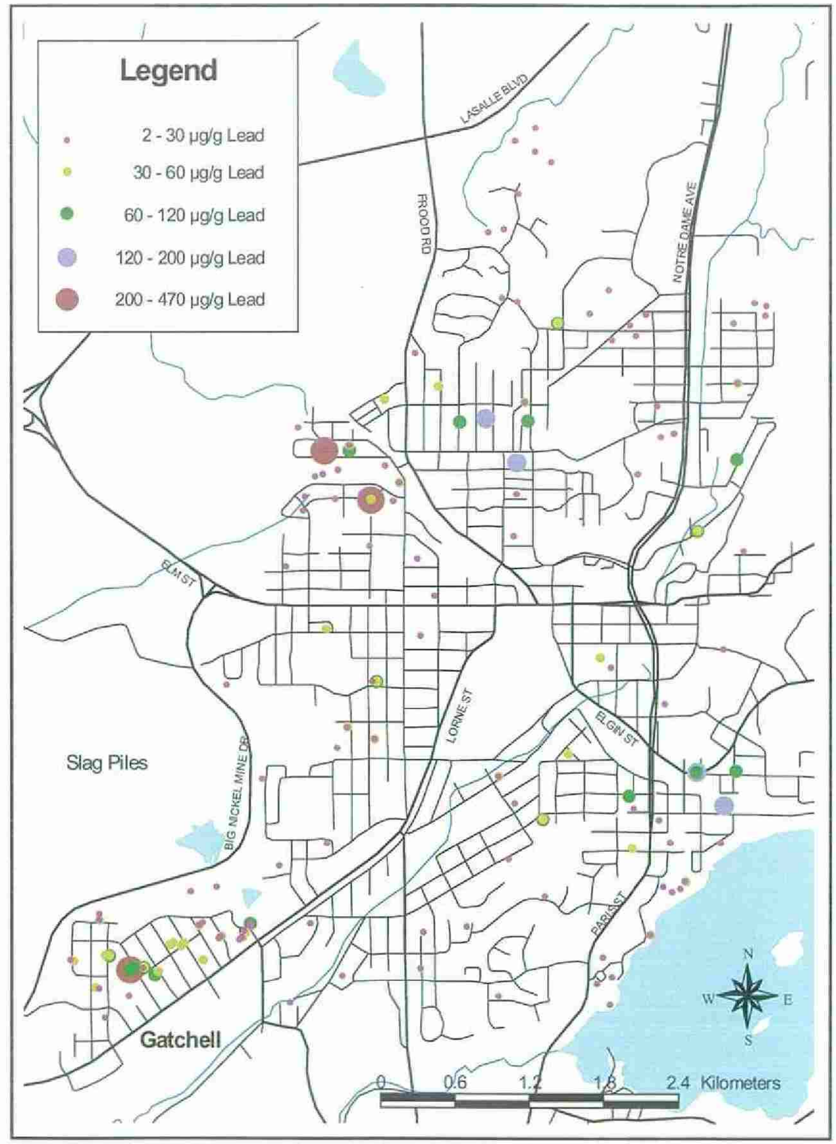
Map 10.2.4.7: As concentrations in urban 0 - 5 cm soil in Sudbury Core



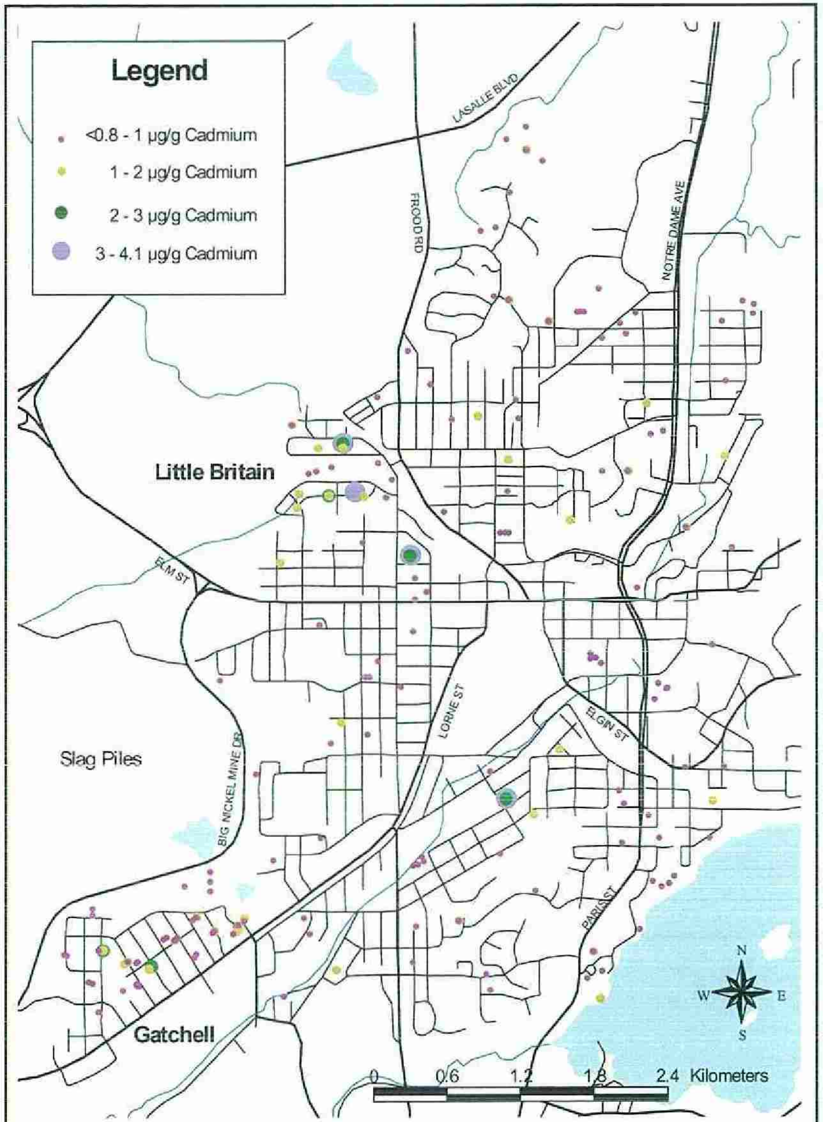
Map 10.2.4.8: As concentrations in urban 10 - 20 cm soil in Sudbury Core



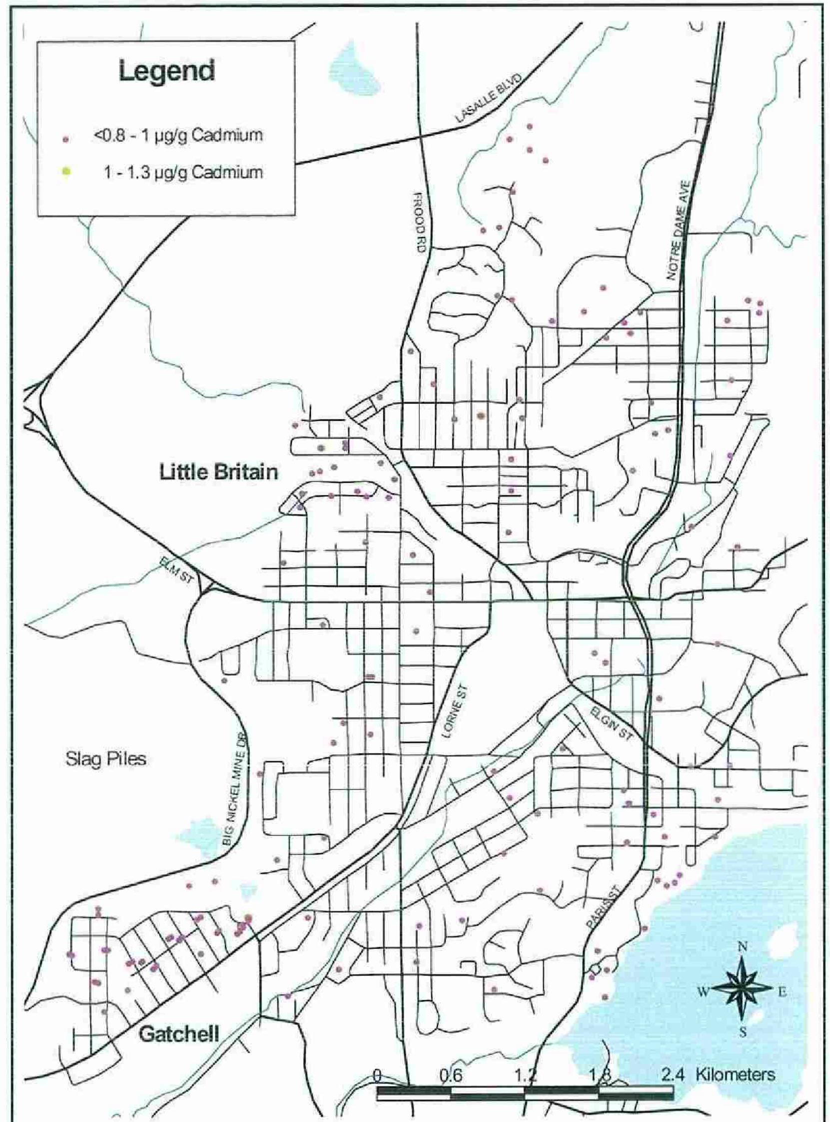
Map 10.2.4.9: Pb concentrations in urban 0 - 5 cm soil in Sudbury Core



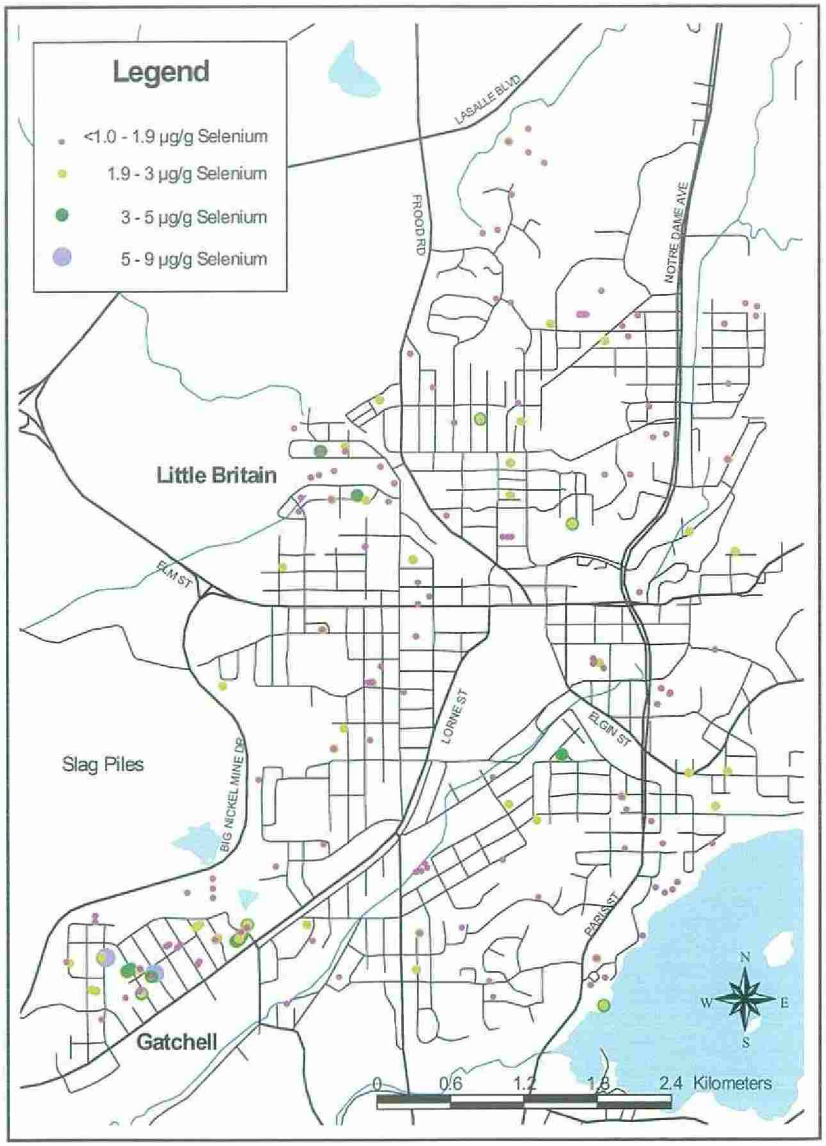
Map 10.2.4.10: Pb concentrations in urban 10 - 20 cm soil in Sudbury Core



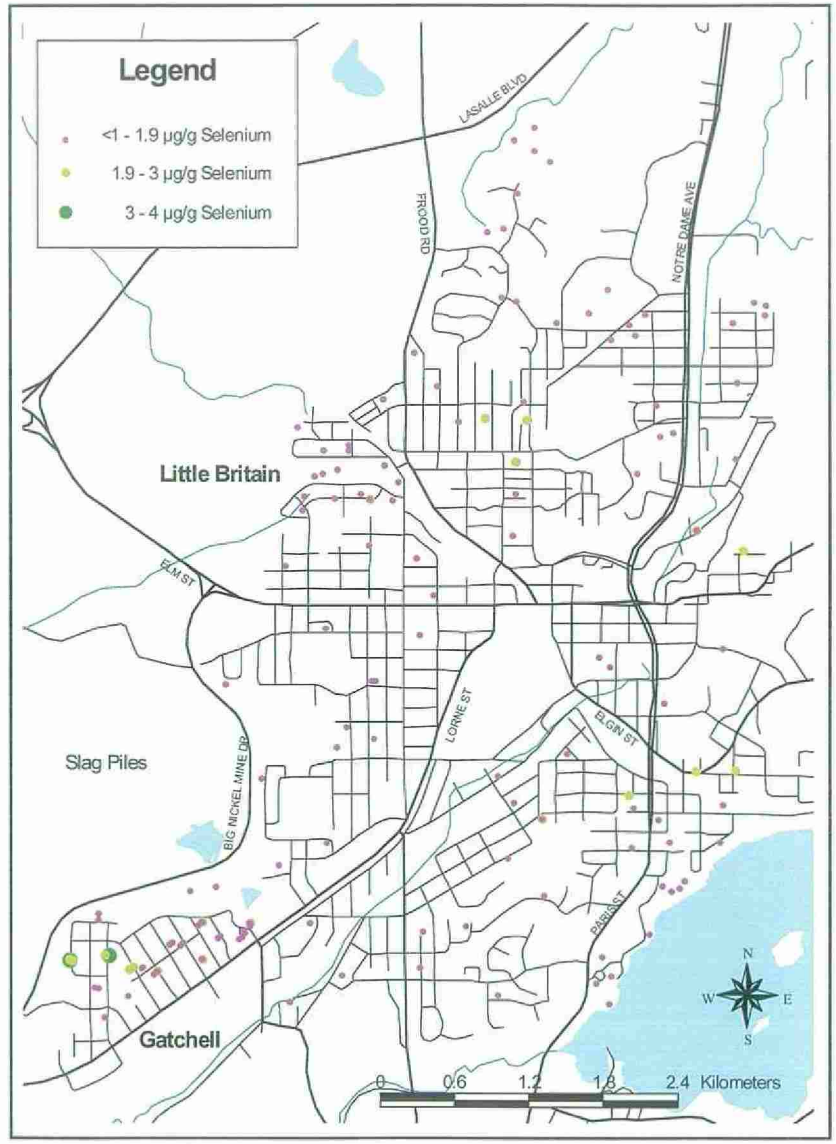
Map 10.2.4.11: Cd concentrations in urban 0 - 5 cm soil in Sudbury Core



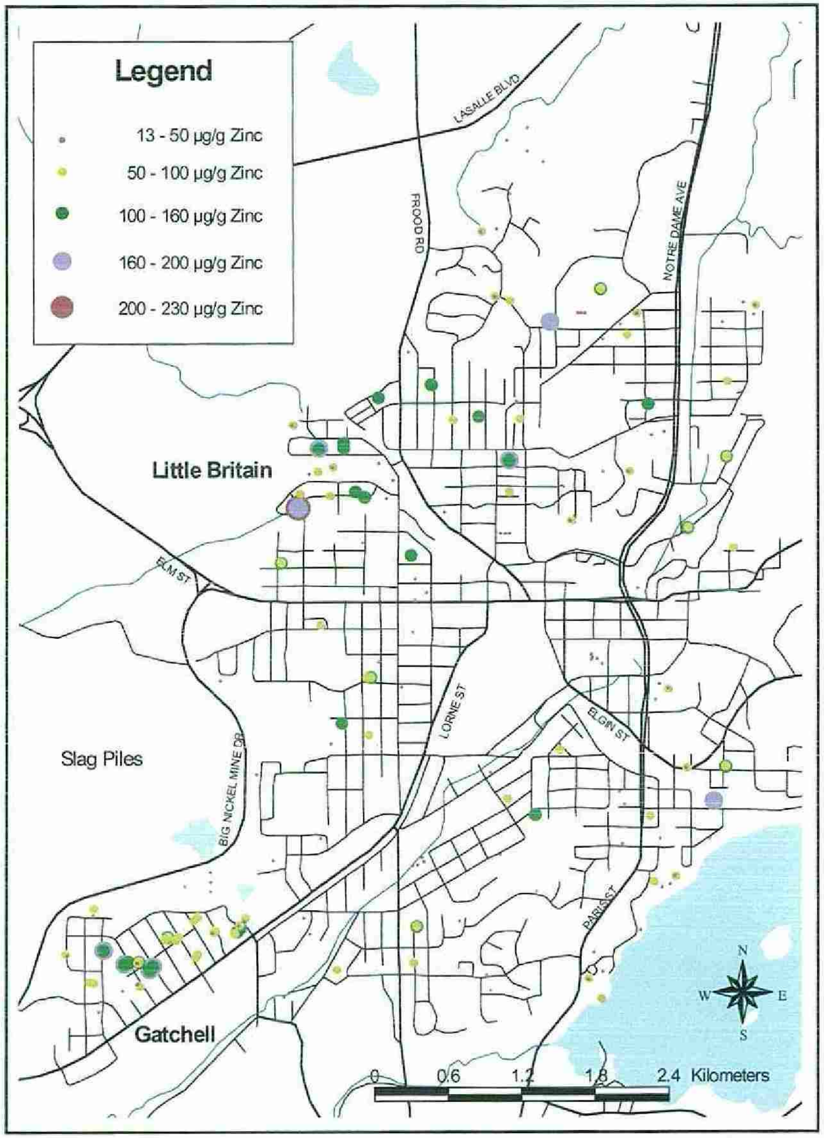
Map 10.2.4.12: Cd concentrations in urban10 - 20 cm soil in Sudbury Core



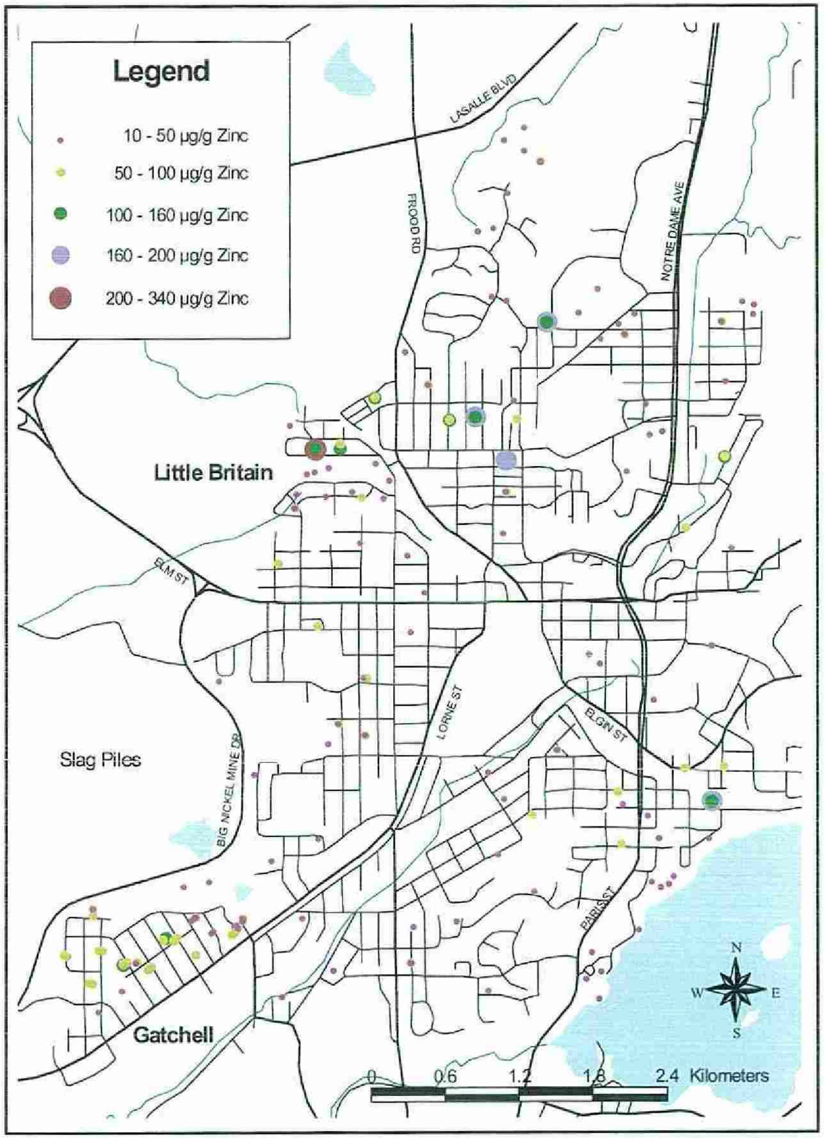
Map 10.2.4.13: Se concentrations in urban 0 - 5 cm soil in Sudbury Core



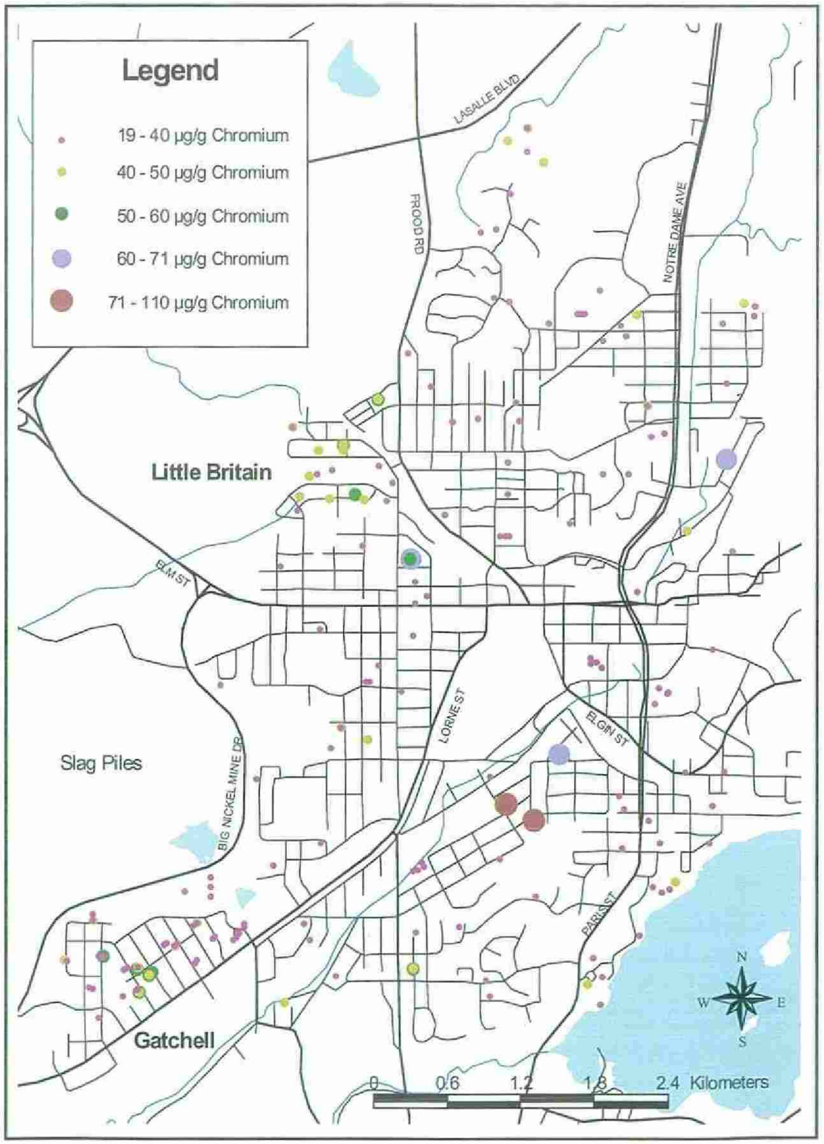
Map 10.2.4.14: Se concentrations in urban 10 - 20 cm soil in Sudbury Core



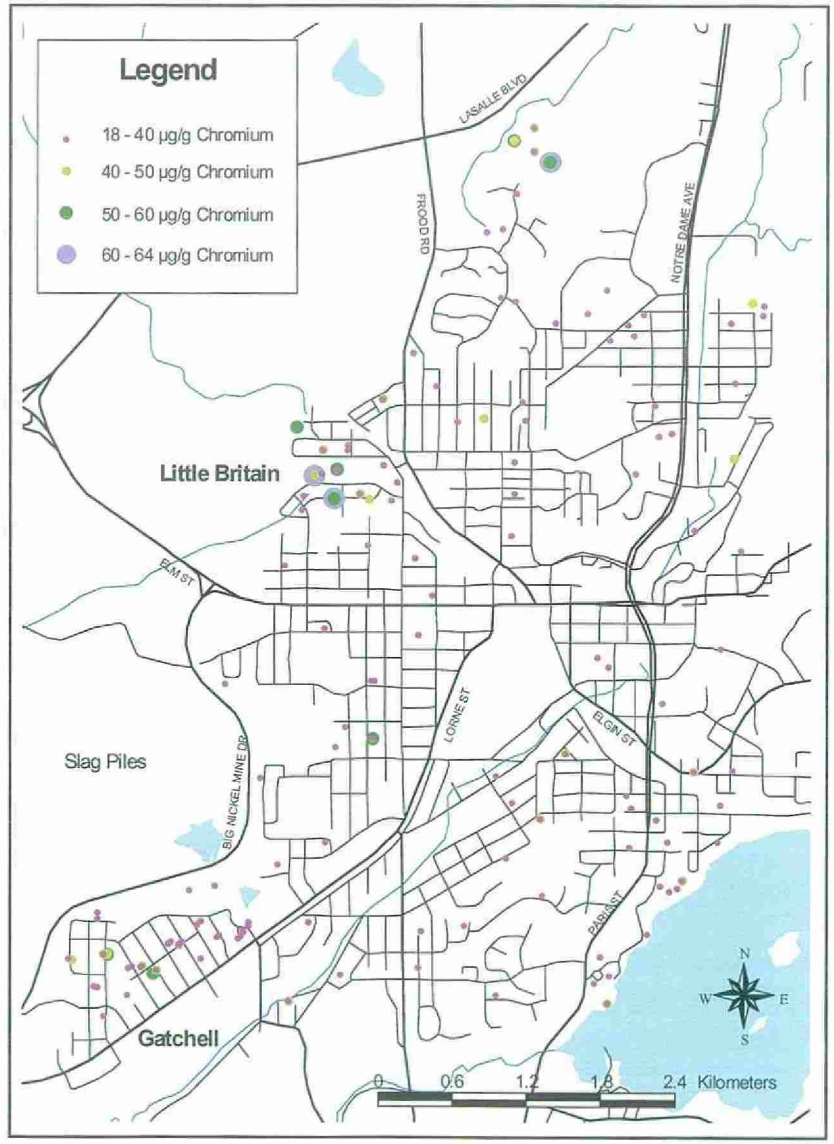
Map 10.2.4.15: Zn concentrations in urban 0 - 5 cm soil in Sudbury Core



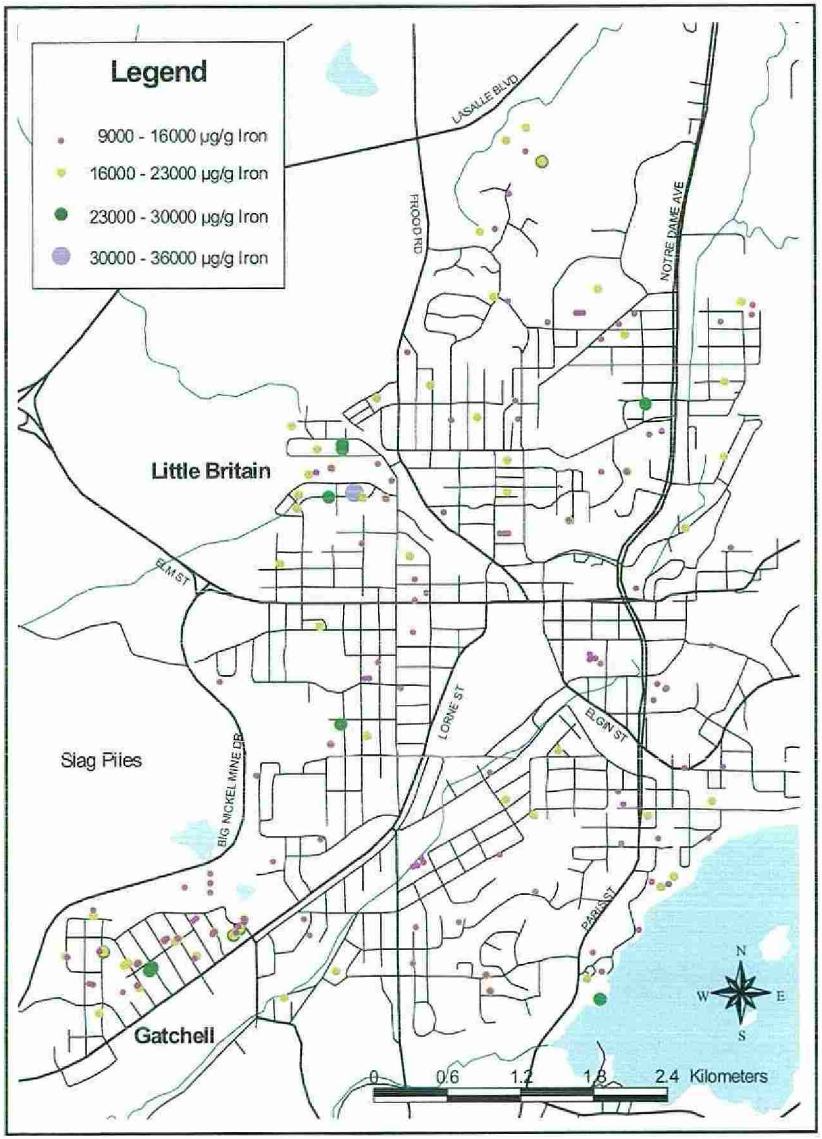
Map 10.2.4.16: Zn concentrations in urban 10 - 20 cm soil in Sudbury Core



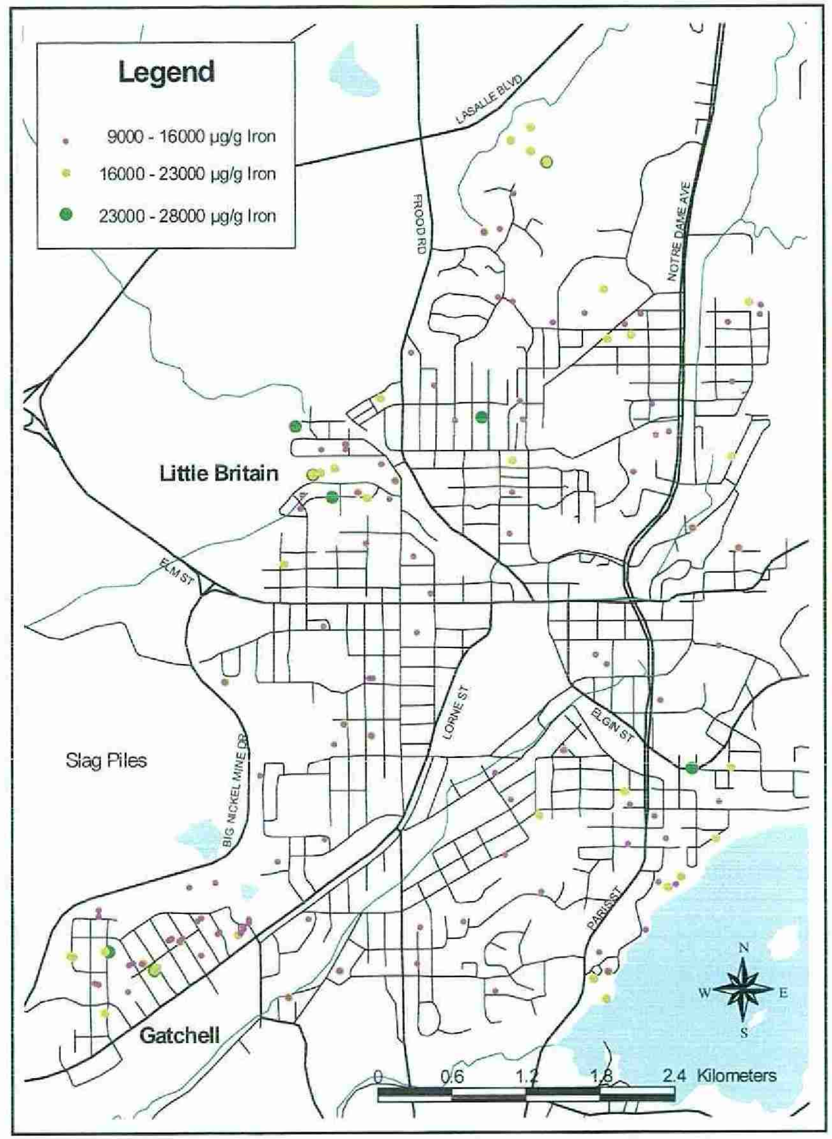
Map 10.2.4.17: Cr concentrations in urban 0 - 5 cm soil in Sudbury Core



Map 10.2.4.18: Cr concentrations in urban 10 - 20 cm in Sudbury Core

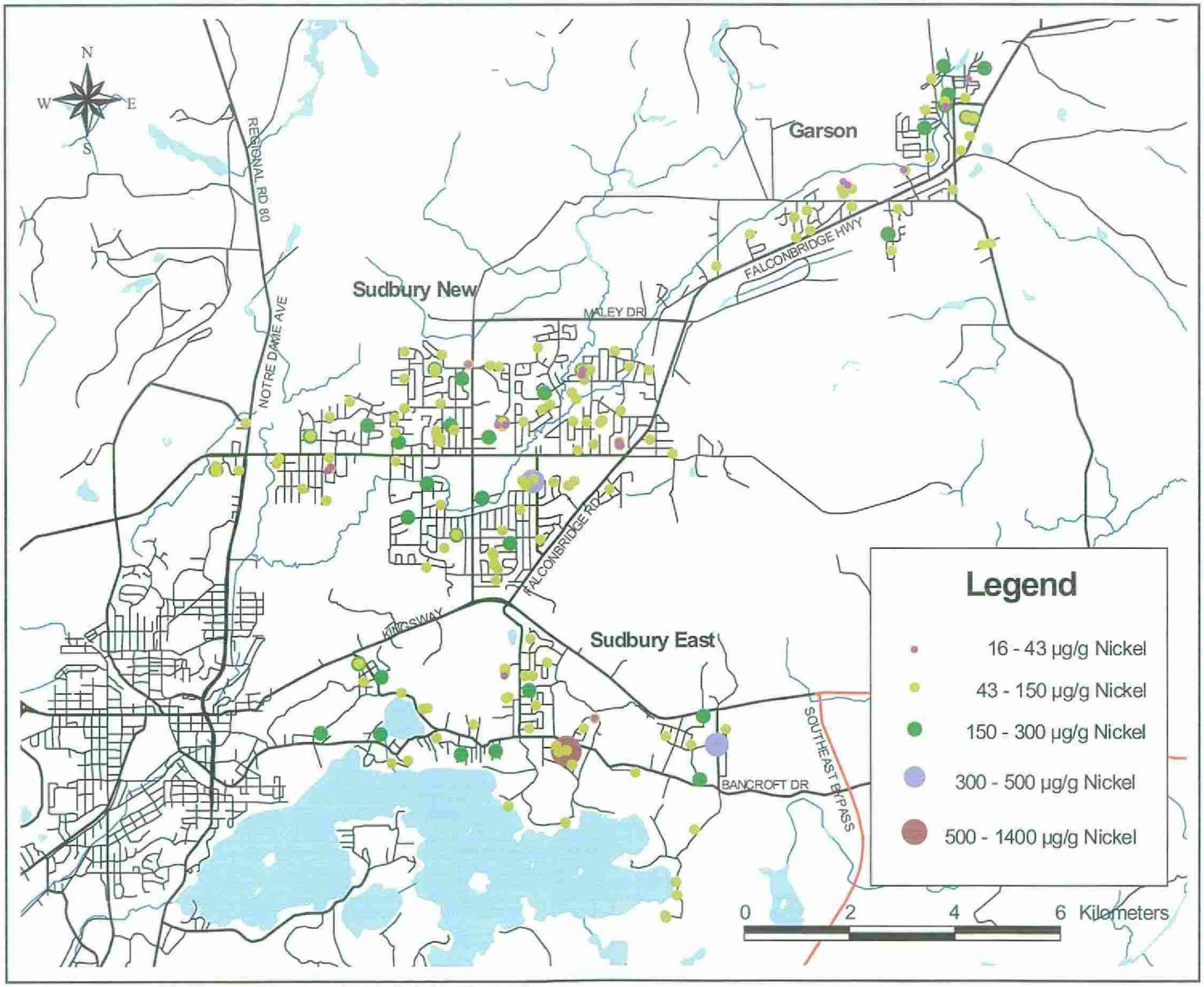


Map 10.2.4.19: Fe concentrations in urban 0 - 5 cm soil in Sudbury Core

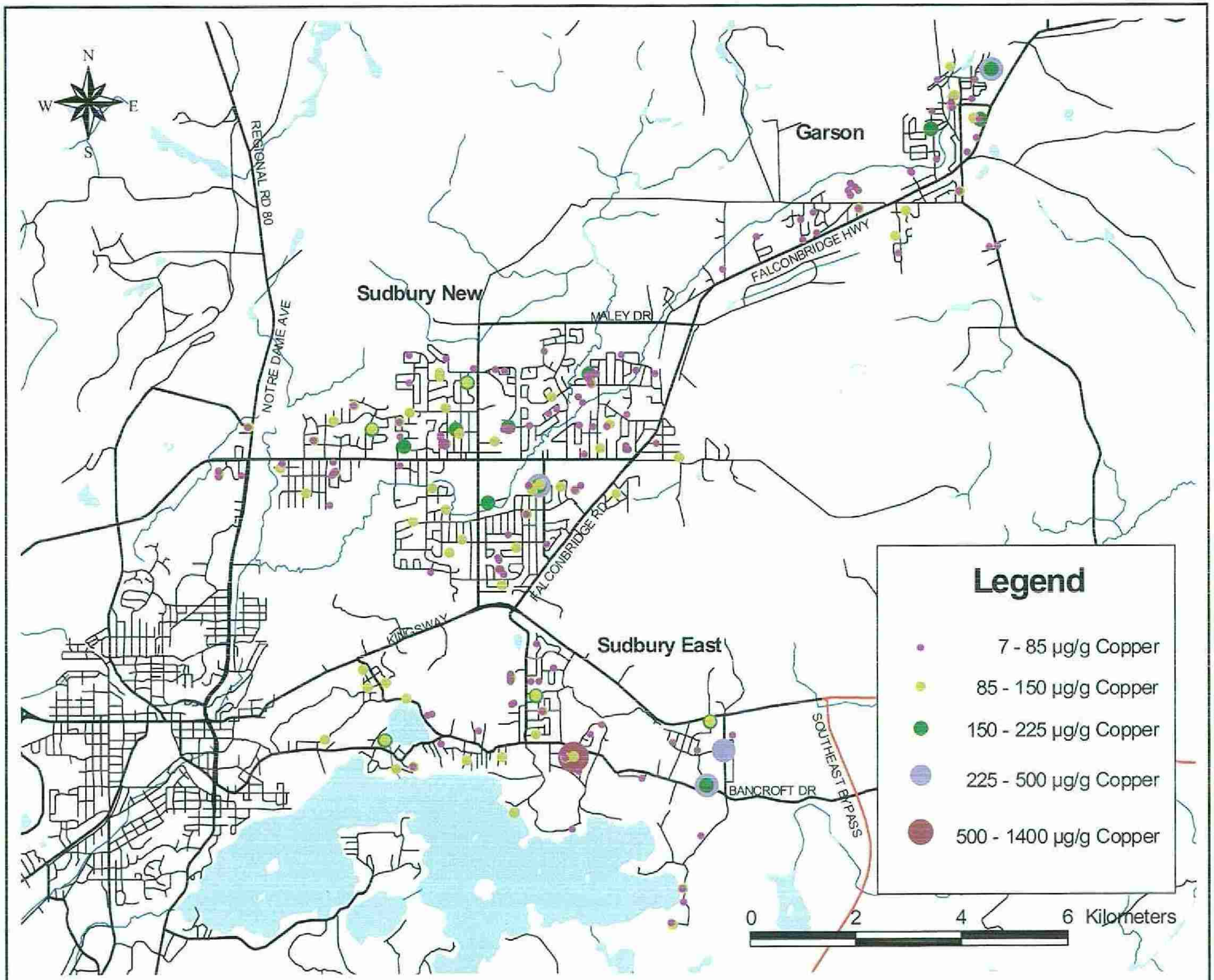


Map 10.2.4.20: Fe concentrations in urban 10 - 20 cm soil in Sudbury Core

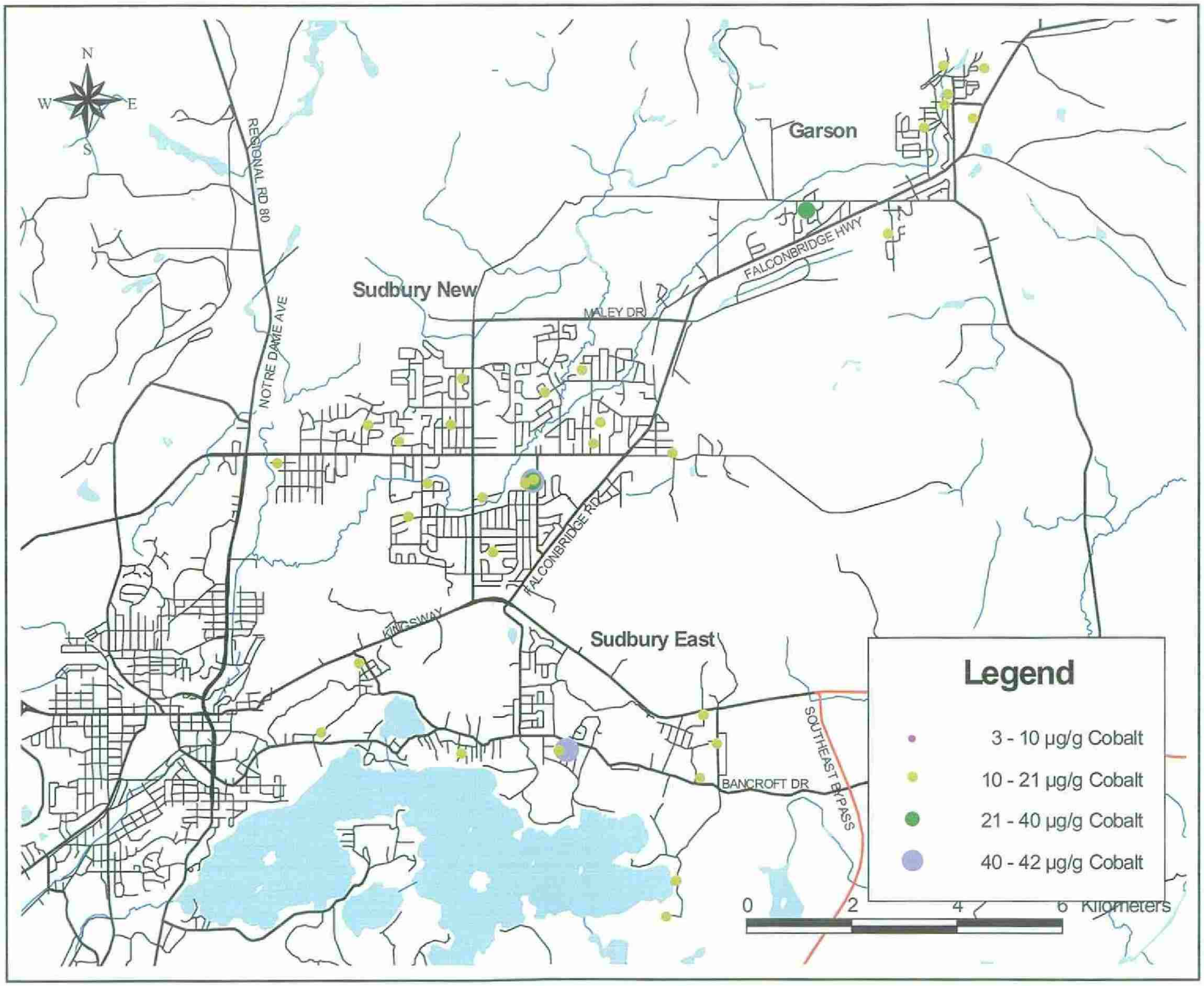
10.2.5 Sudbury New and East, and Garson



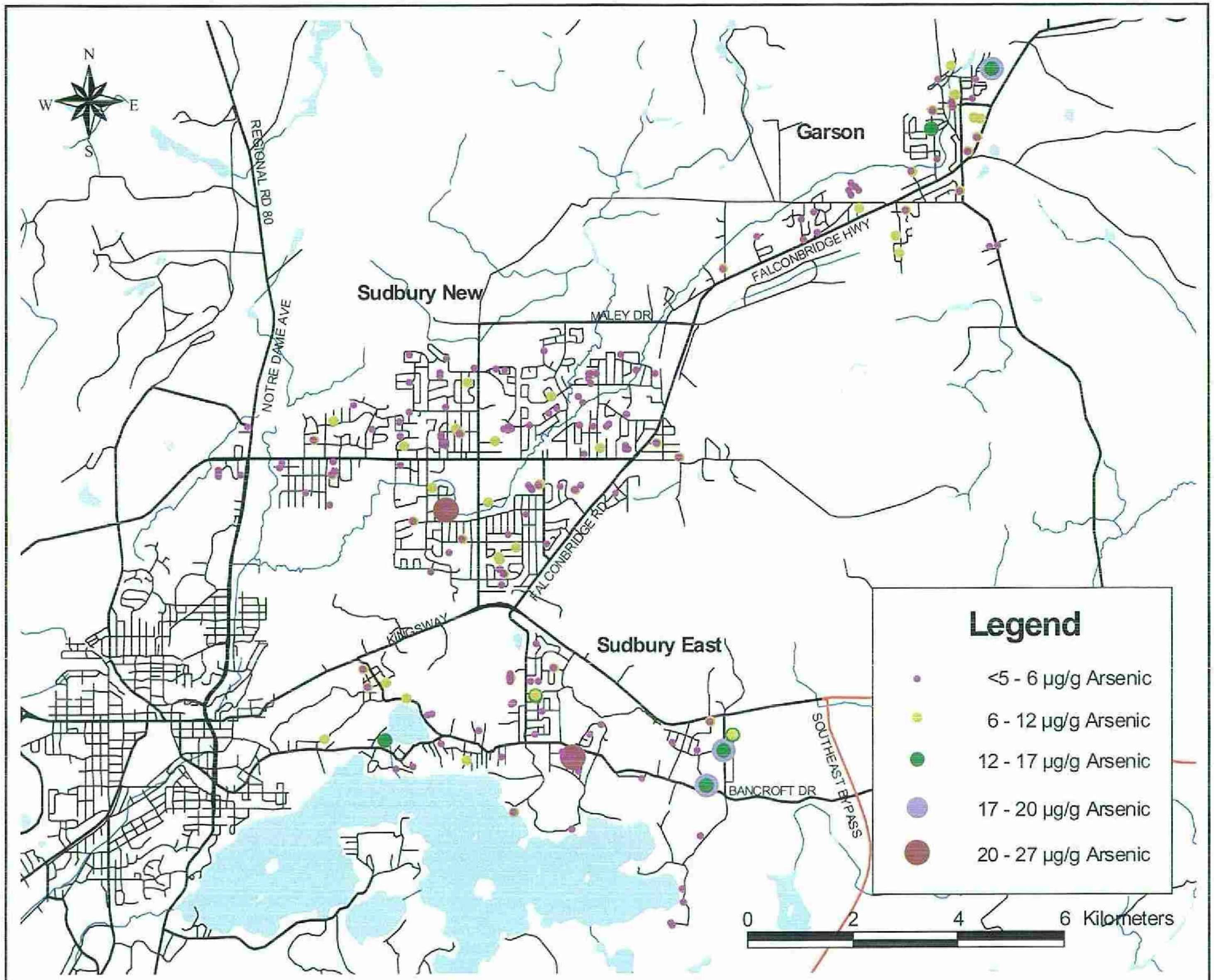
Map 10.2.5.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson



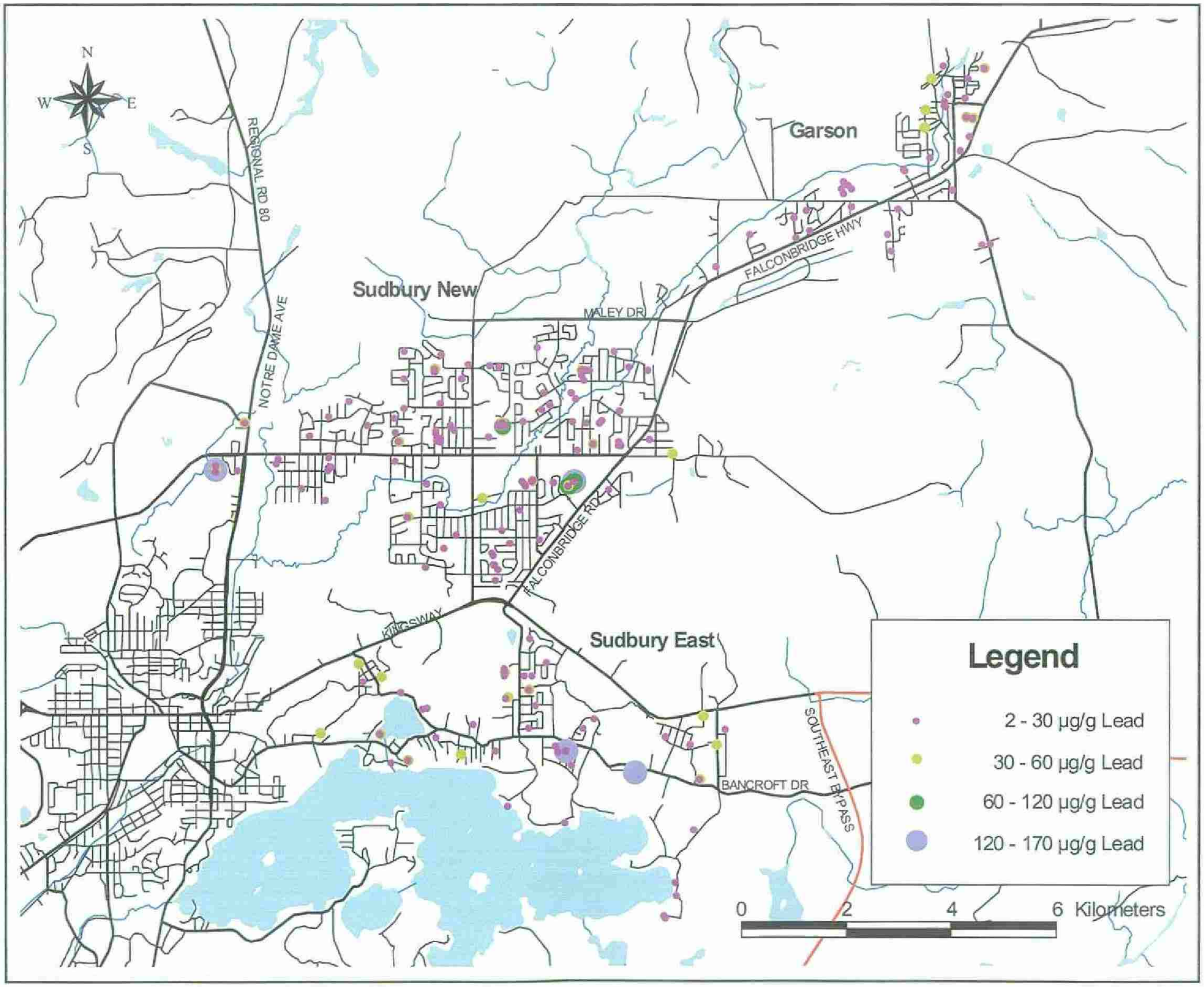
Map 10.2.5.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson



Map 10.2.5.3: Co concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

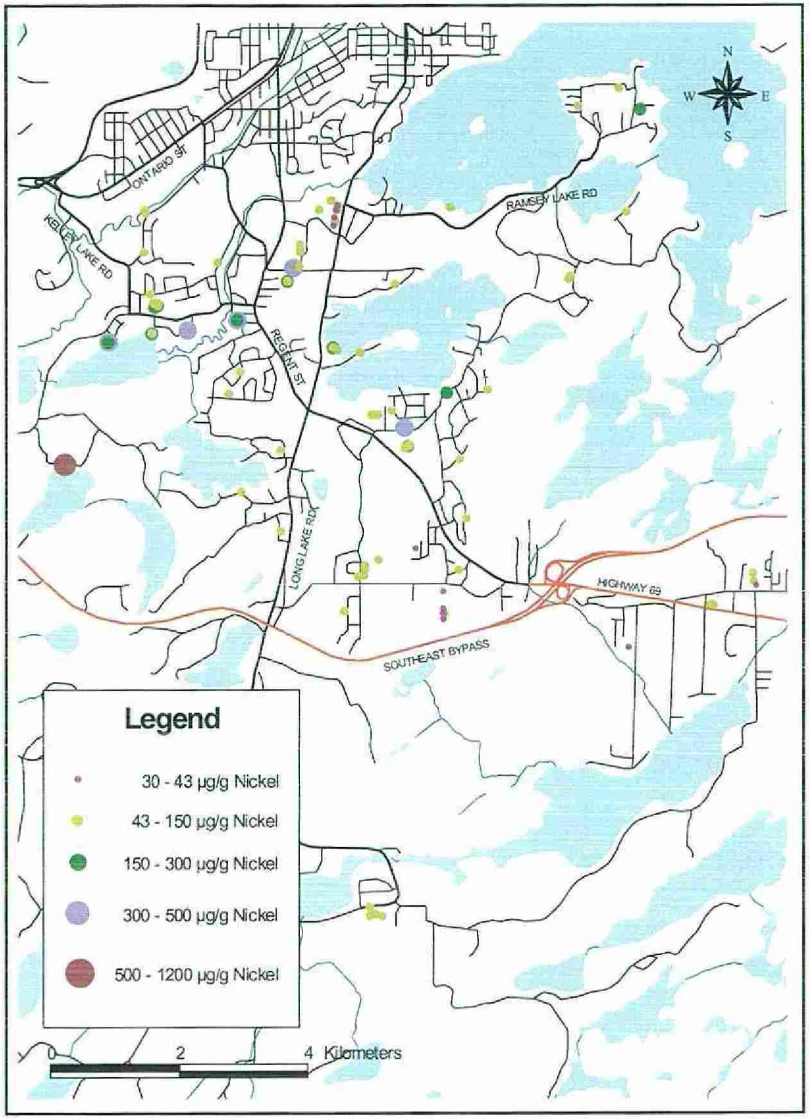


Map 10.2.5.4: As concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

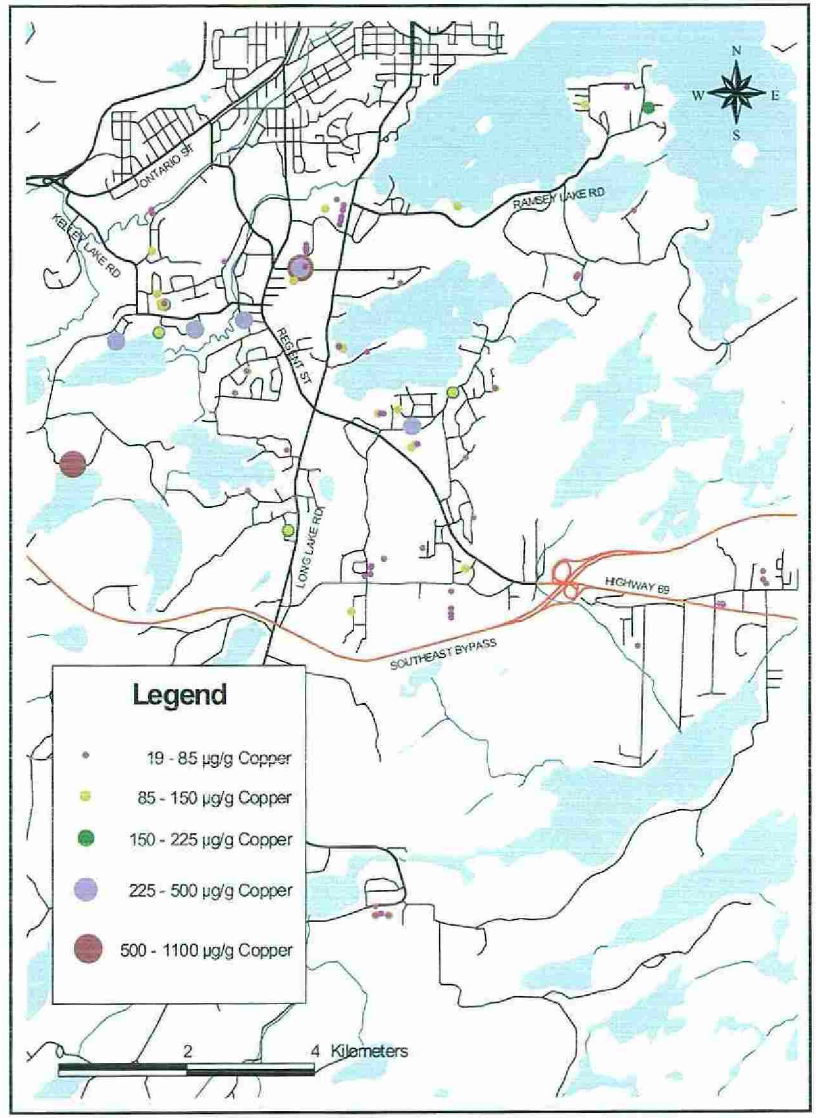


Map 10.2.5.5: Pb oncentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

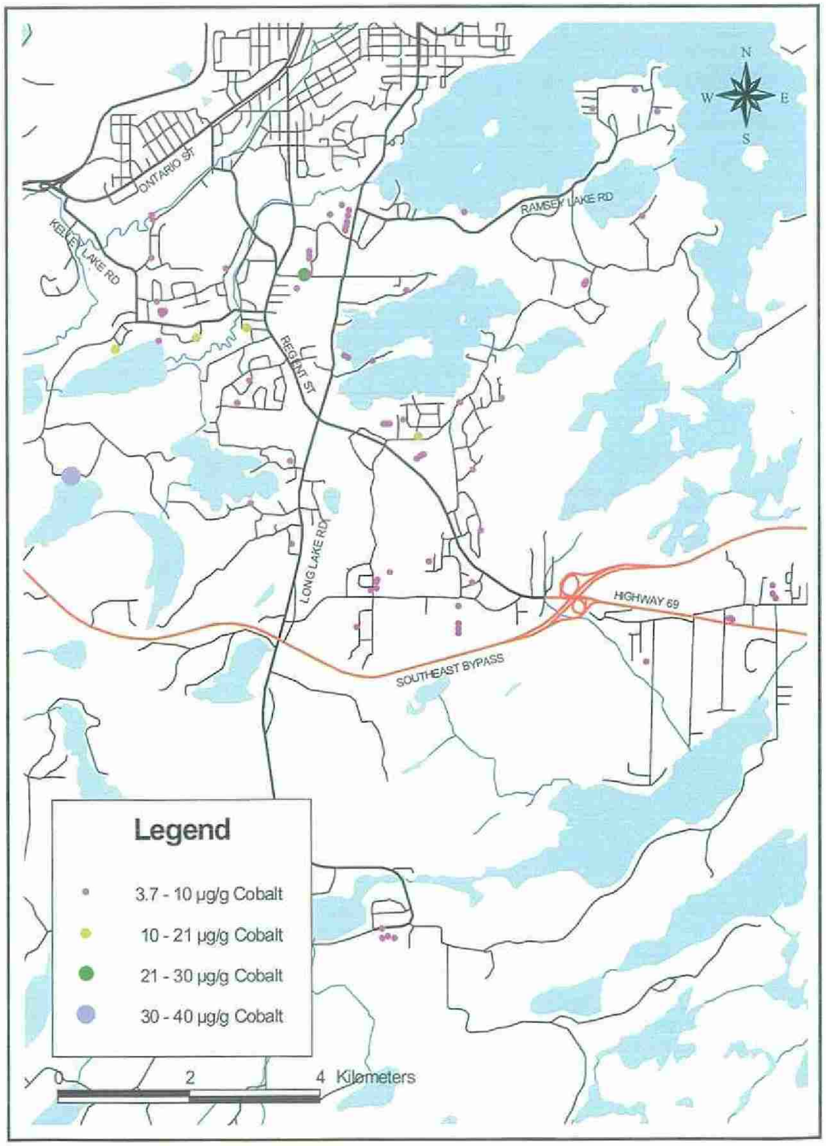
10.2.6 Sudbury South



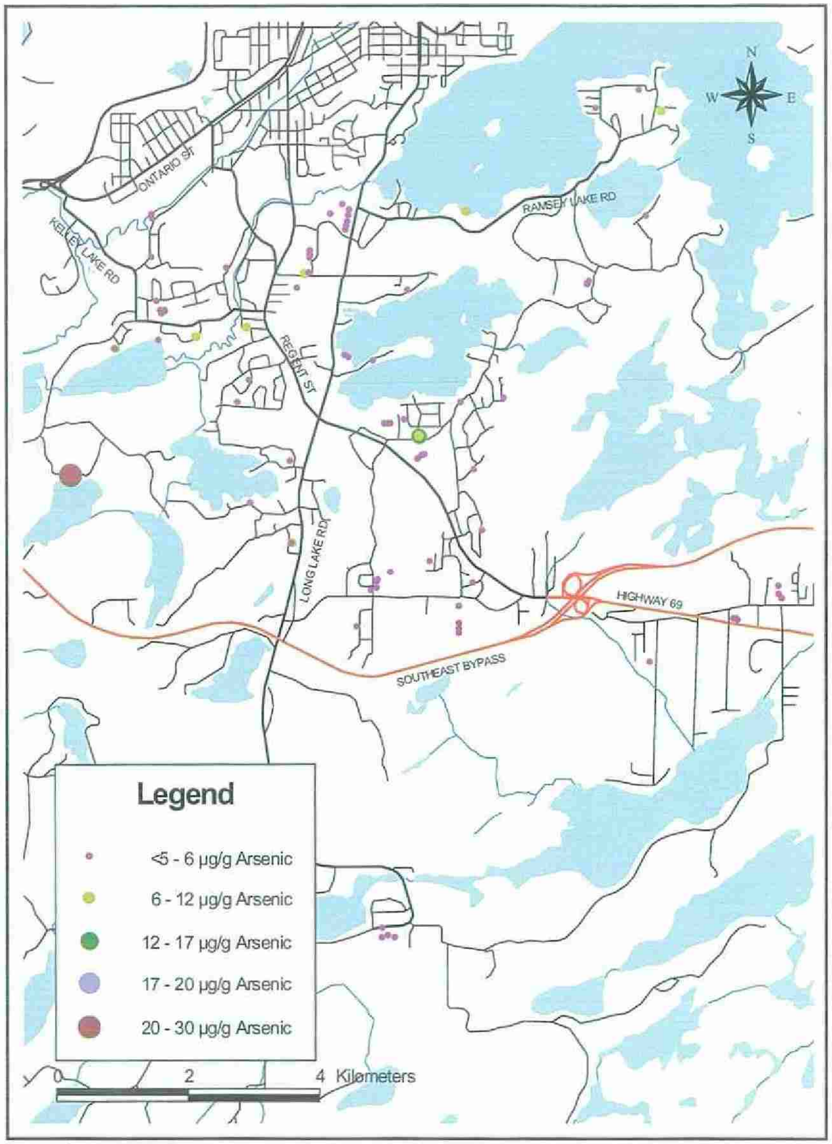
Map 10.2.6.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury South



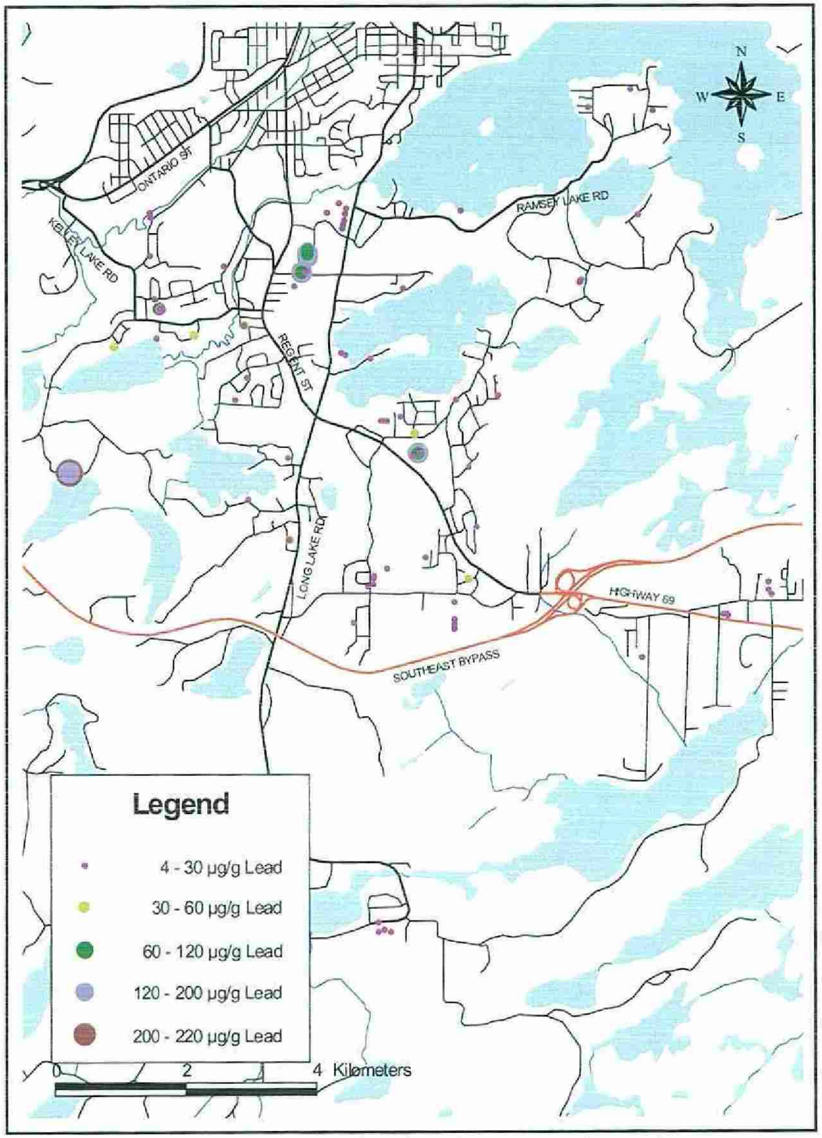
Map 10.2.6.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury South



Map 10.2.6.3: Co concentrations in urban 0 - 5 cm soil in Sudbury South

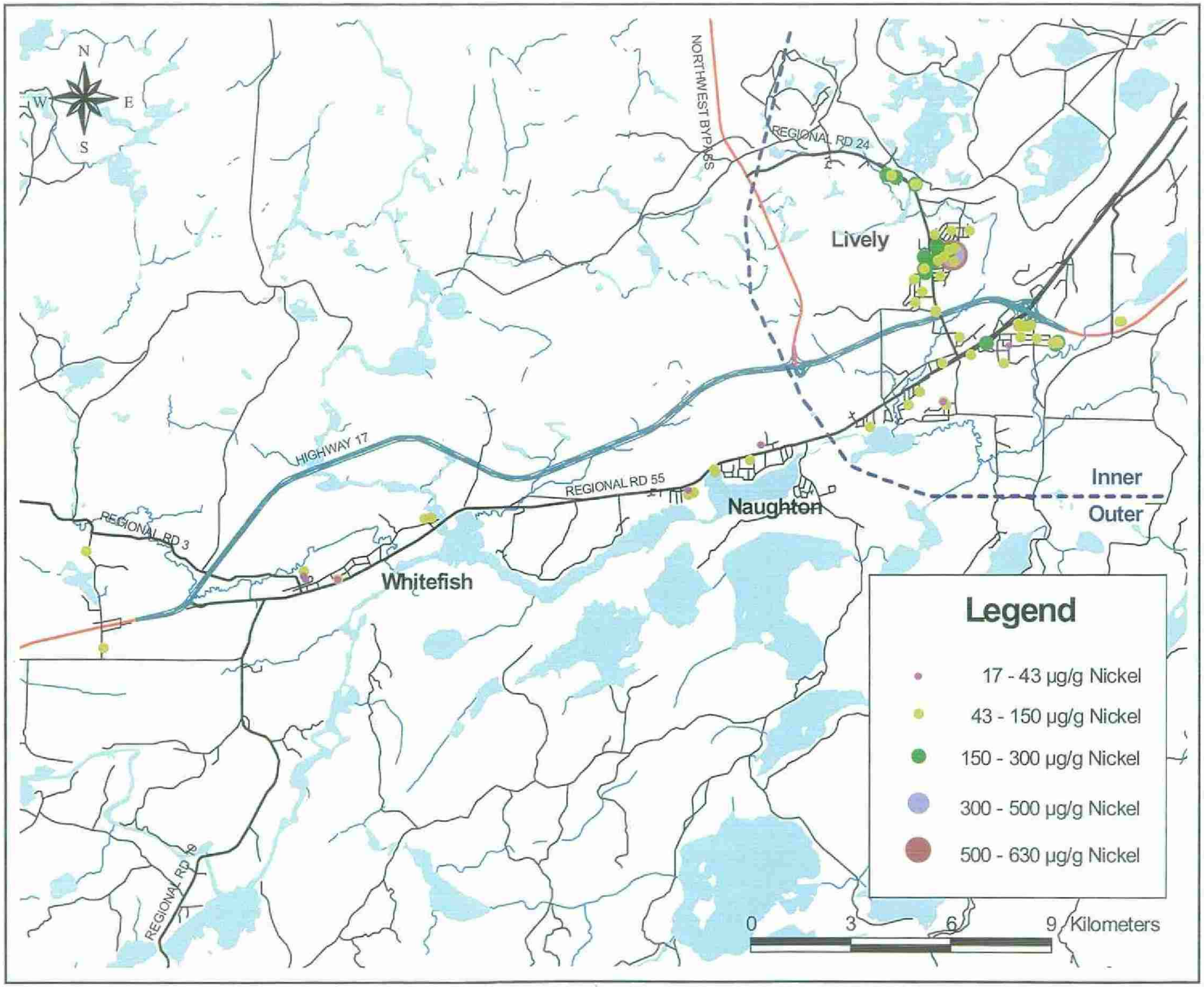


Map 10.2.6.4: As concentrations in urban 0 - 5 cm soil in Sudbury South

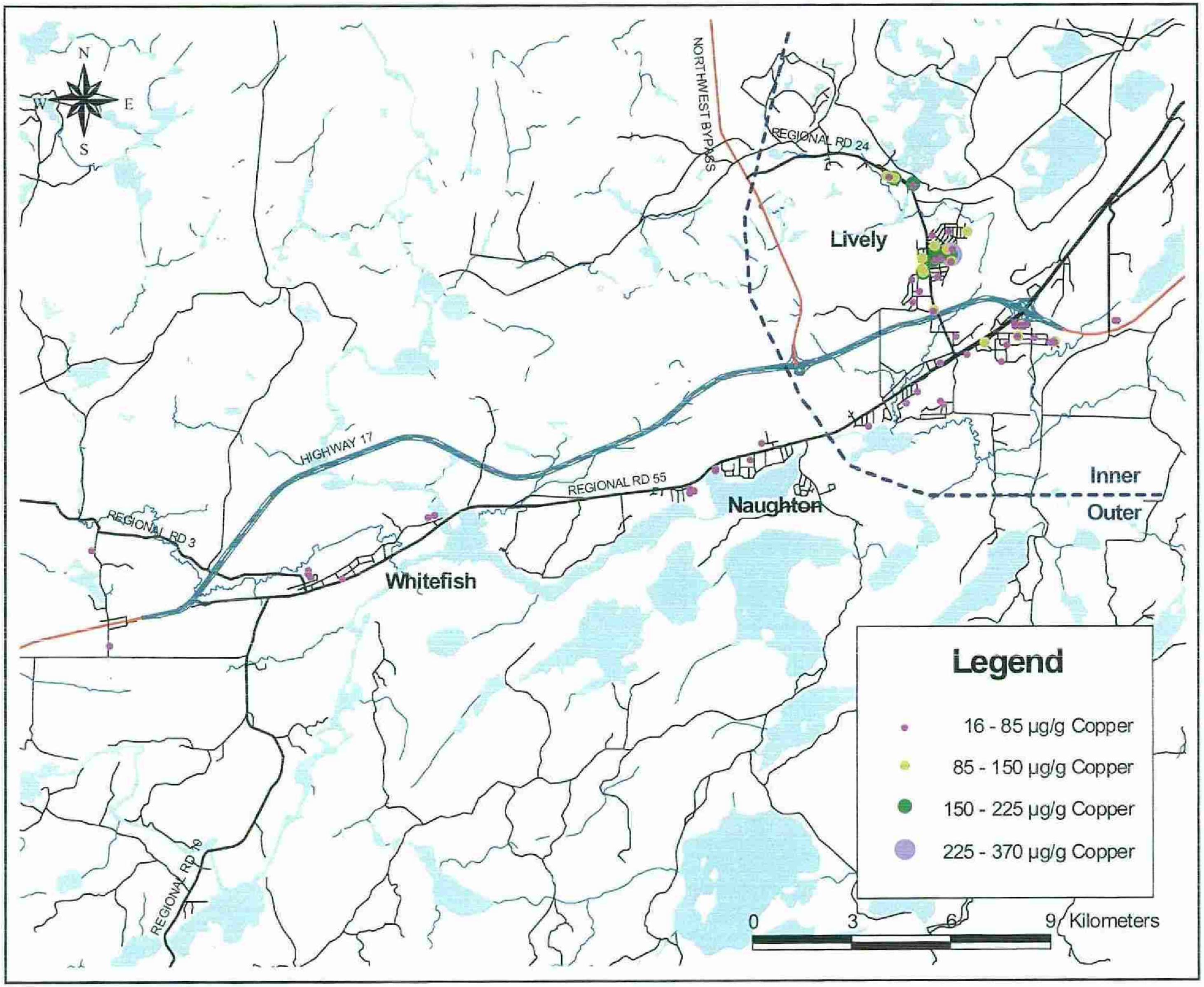


Map 10.2.6.5: Pb concentrations in urban 0 - 5 cm soil in Sudbury South

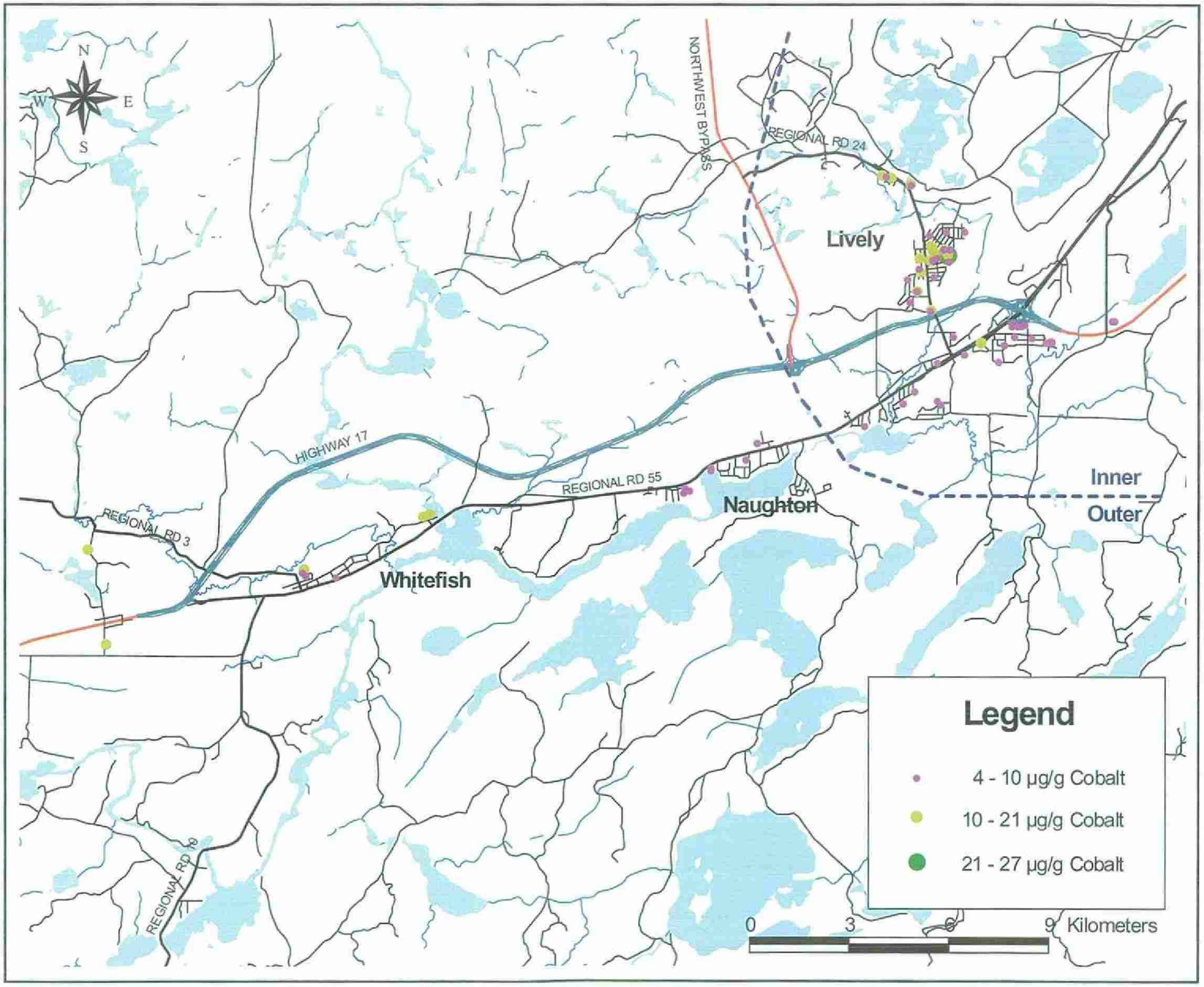
10.2.7 Sudbury West



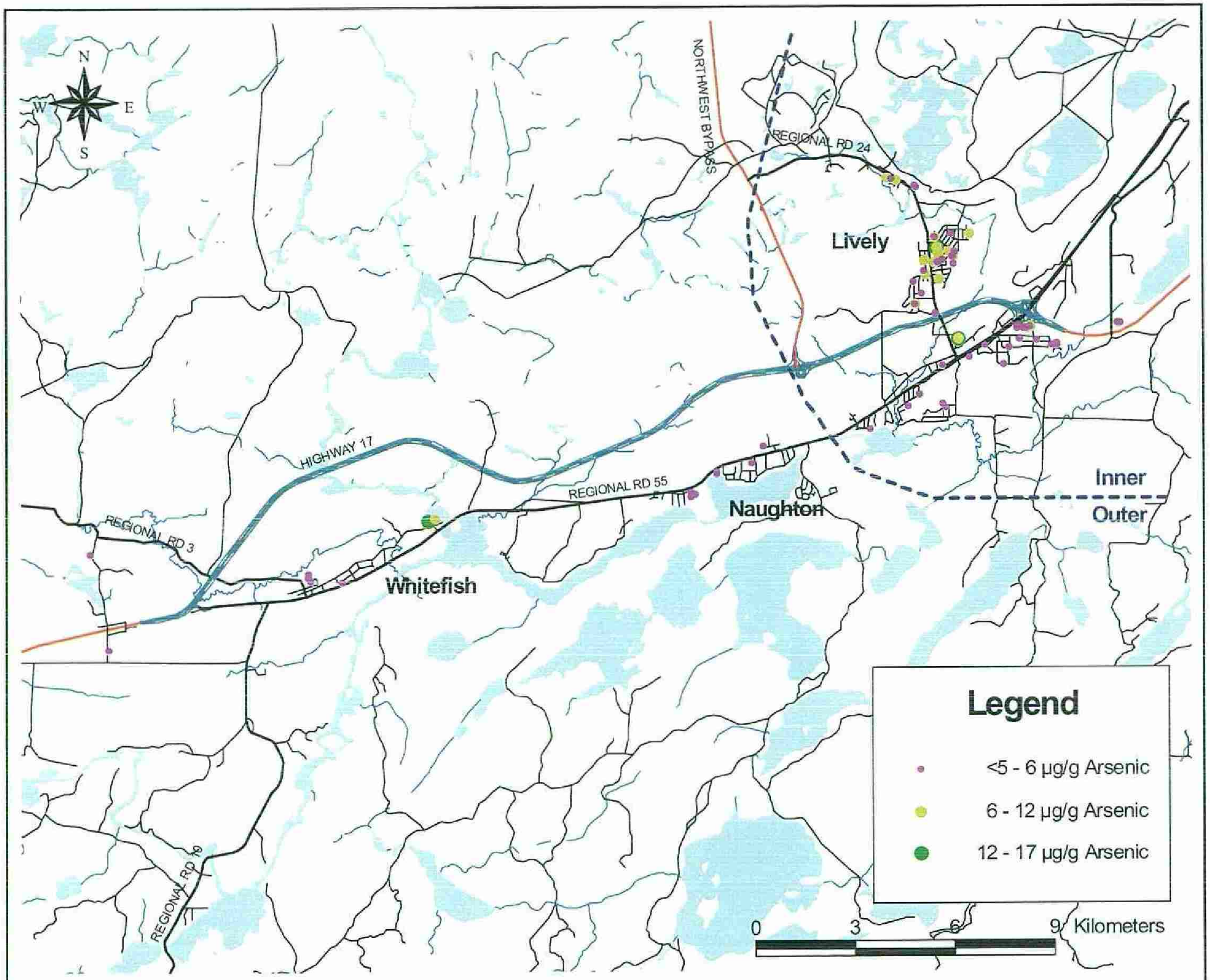
Map 10.2.7.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury West



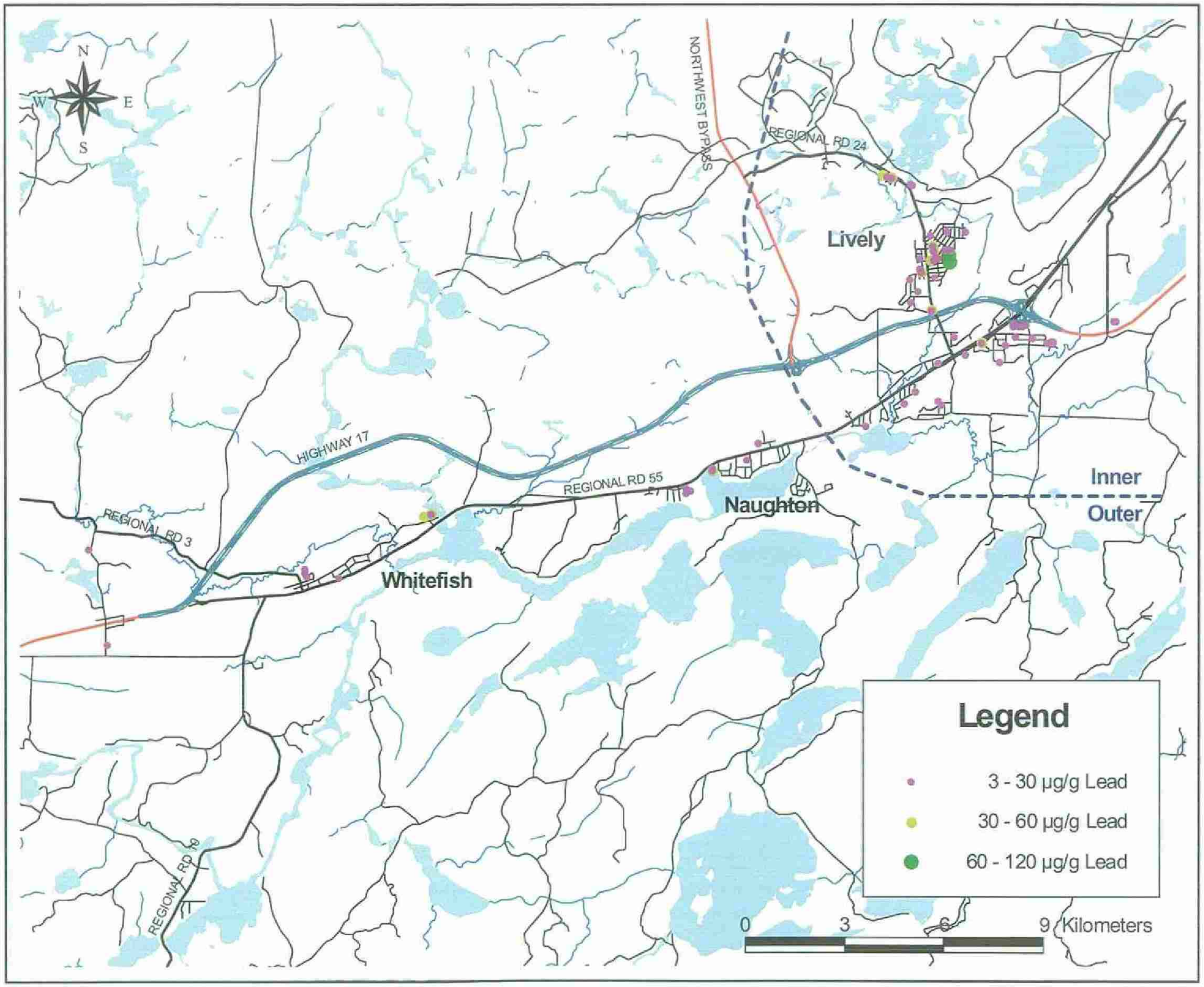
Map 10.2.7.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury West



Map 10.2.7.3: Co concentrations in urban 0 - 5 cm soil in Sudbury West

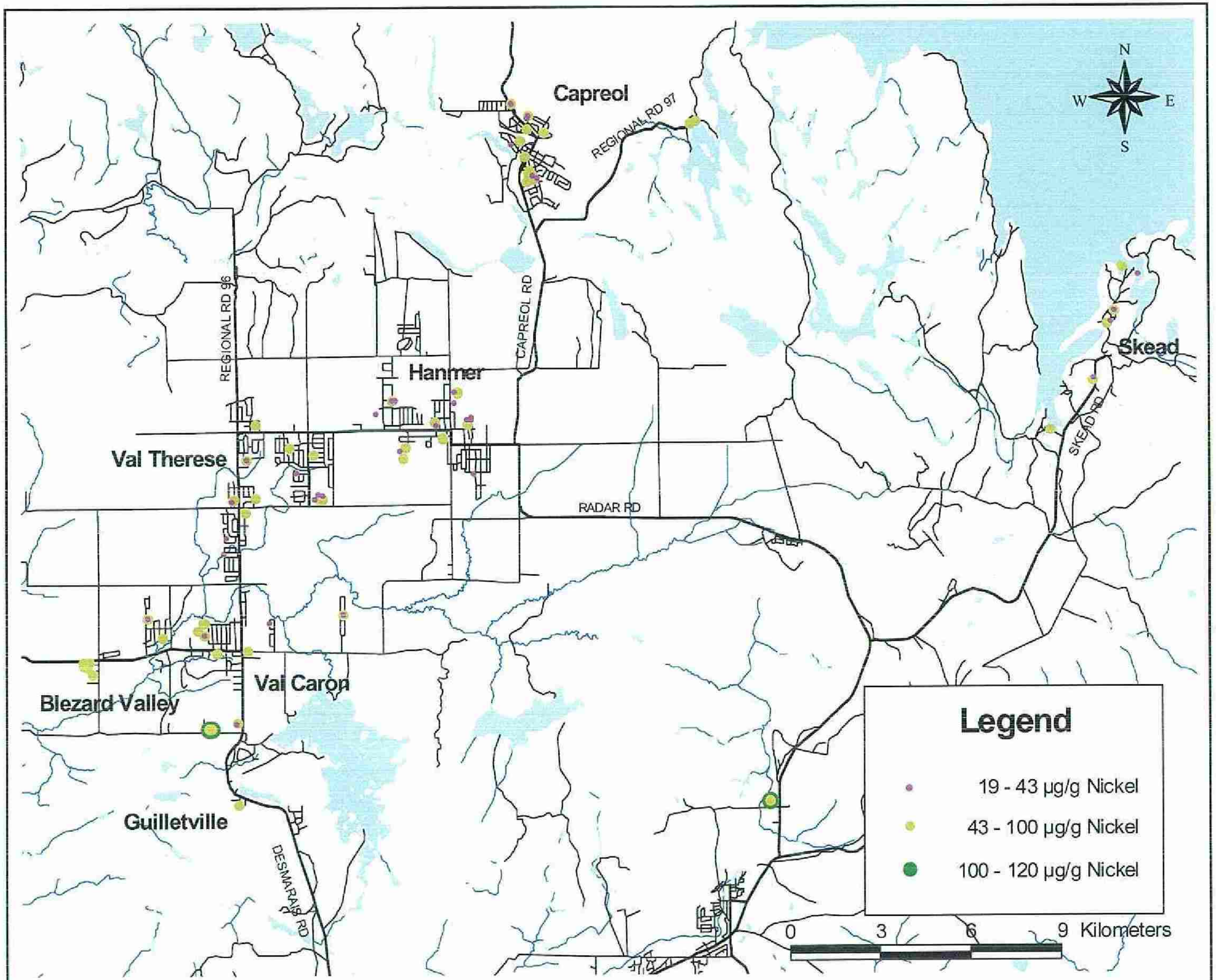


Map 10.2.7.4: As concentrations in urban 0 - 5 cm soil in Sudbury West

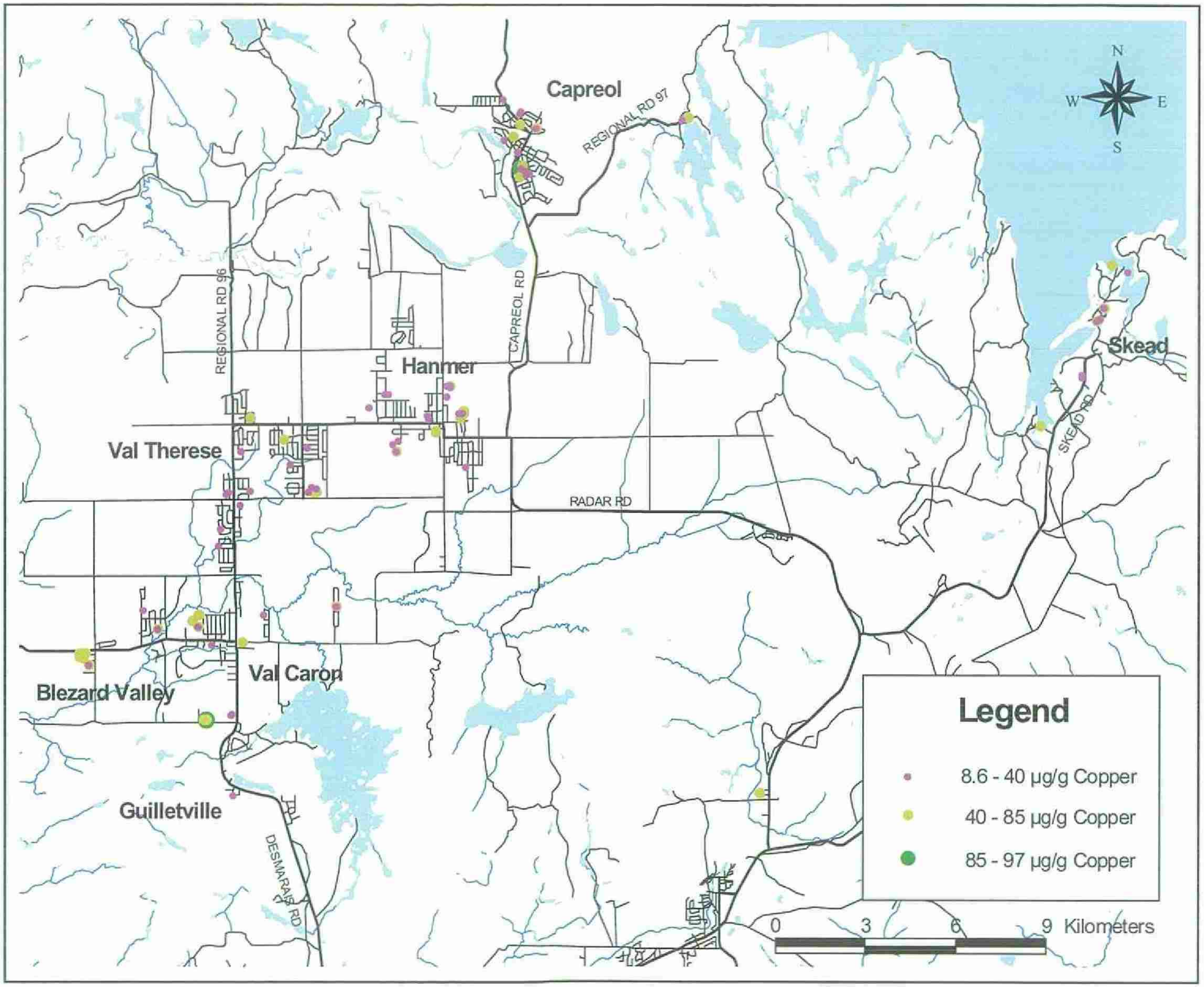


Map 10.2.7.5: Pb concentrations in urban 0 - 5 cm soil in Sudbury West

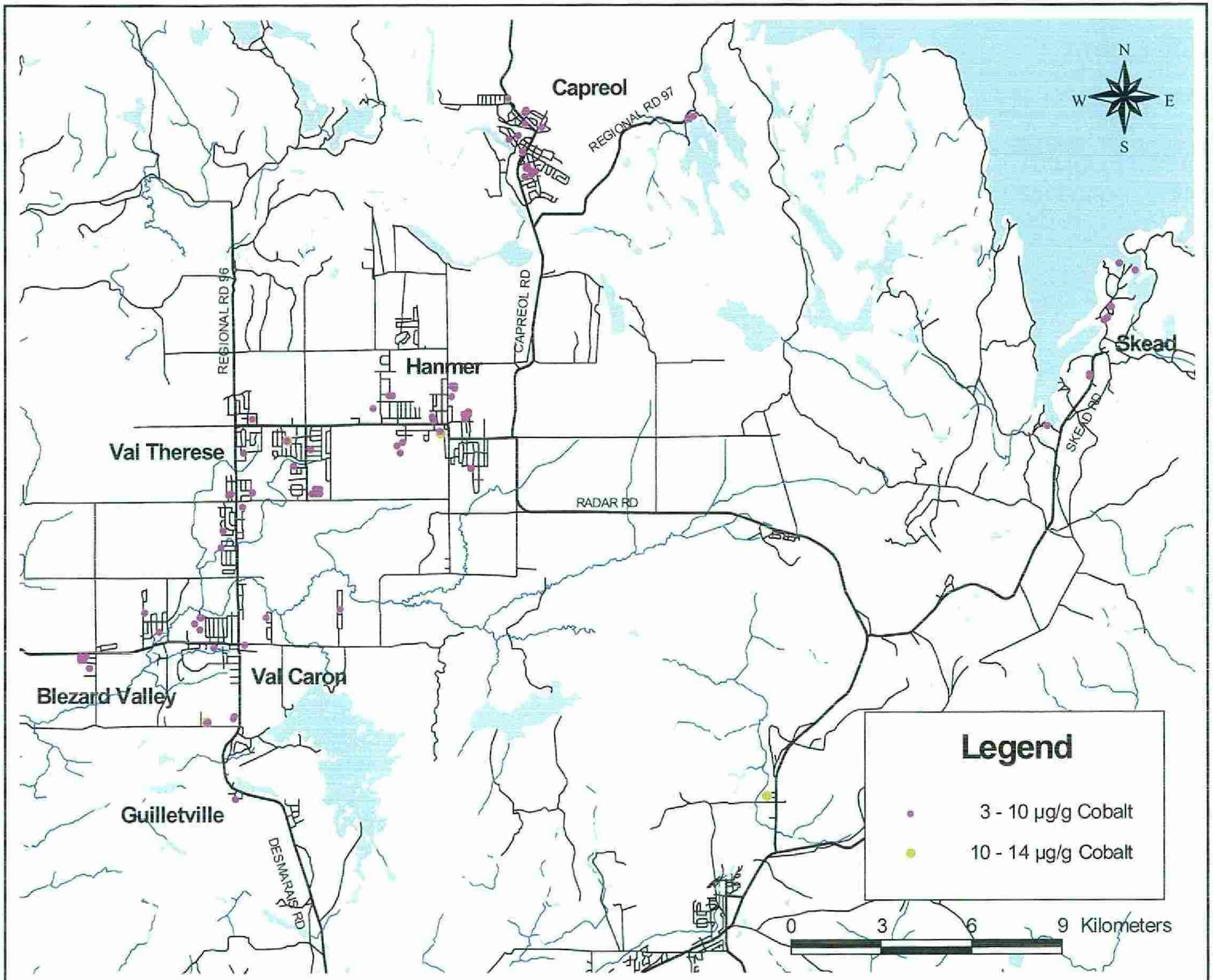
10.2.8 Valley East



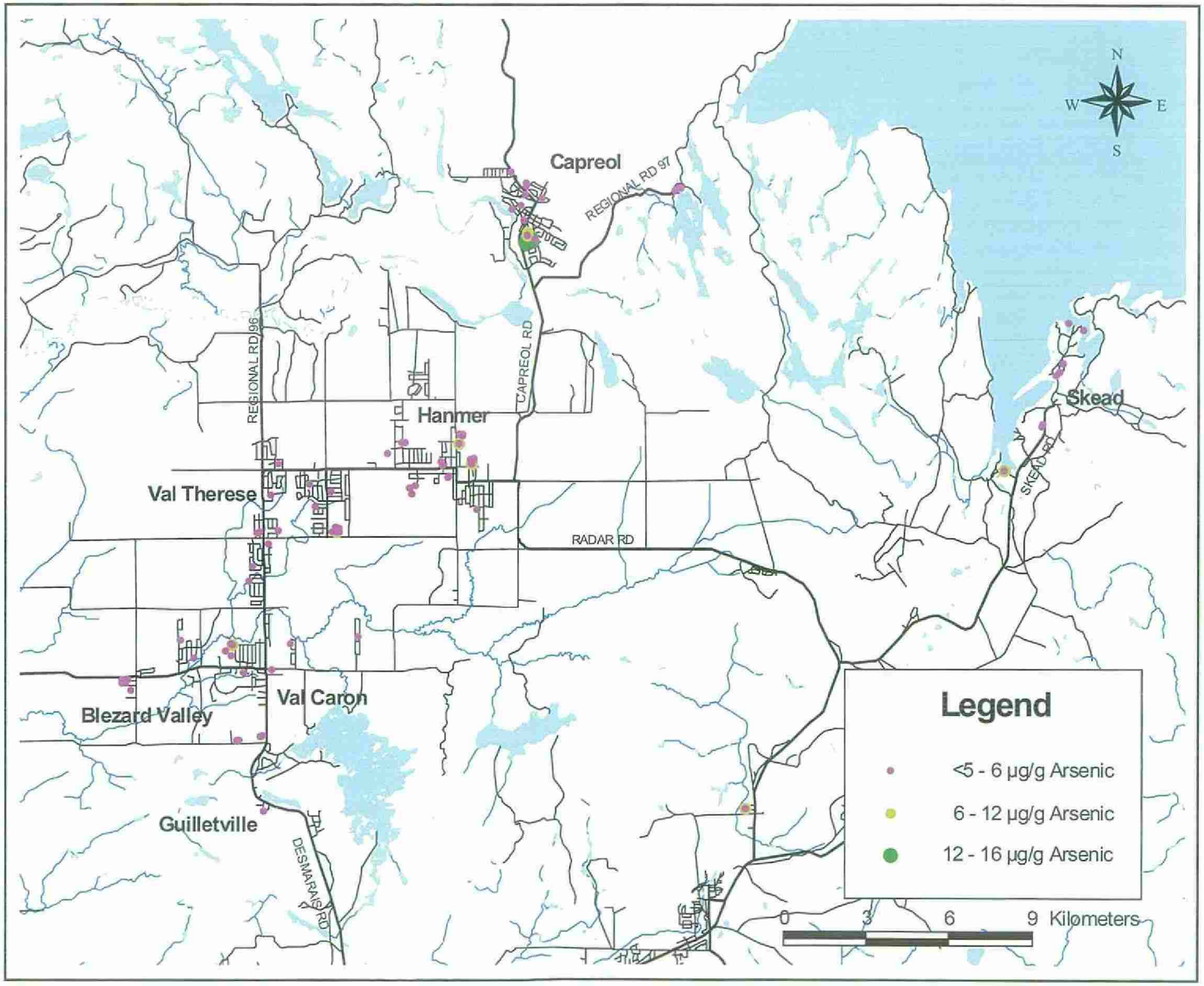
Map 10.2.8.1: Ni concentrations in urban 0 - 5 cm soil in Valley East



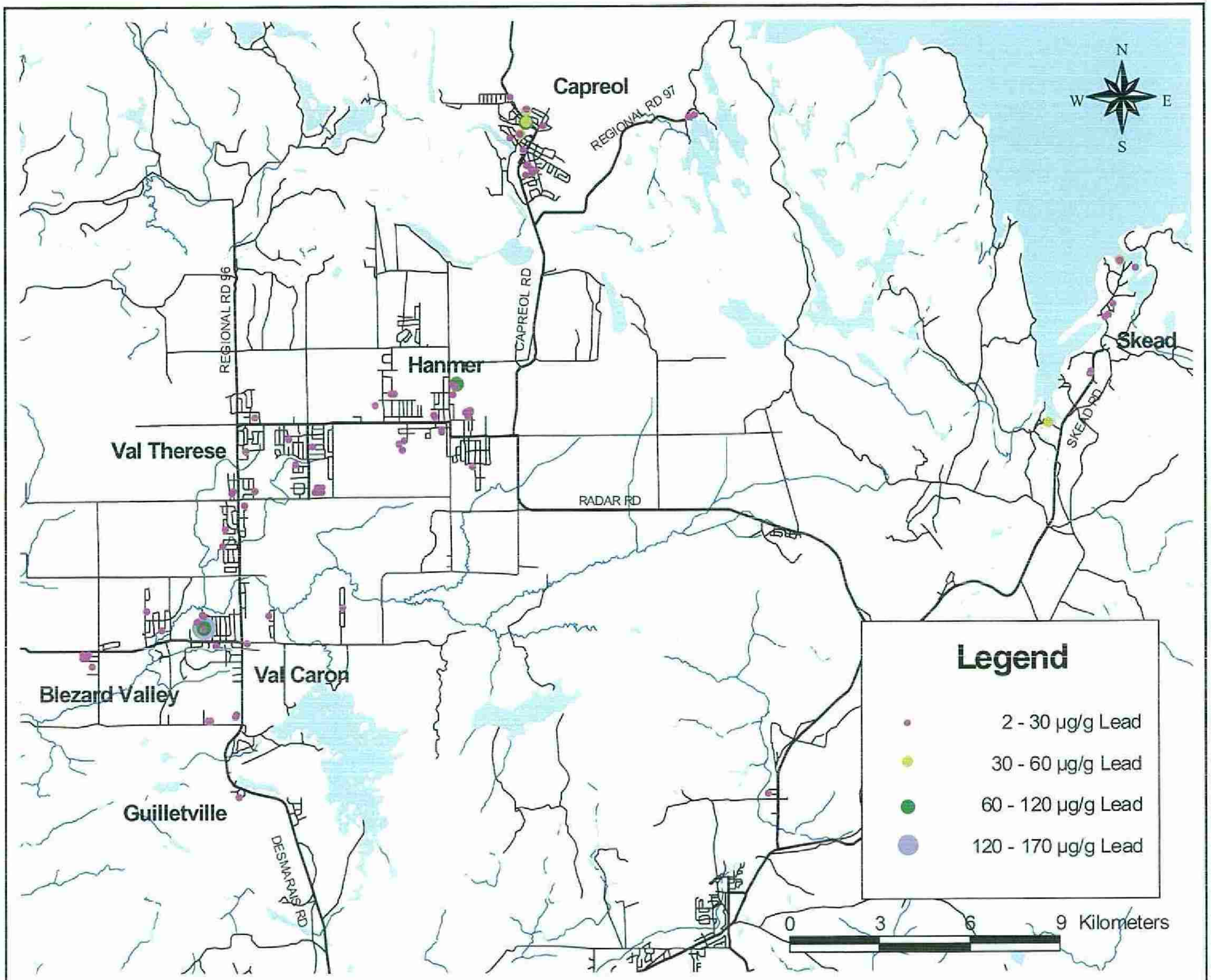
Map 10.2.8.2: Cu concentrations in urban 0 - 5 cm soil in Valley East



Map 10.2.8.3: Co concentrations in urban 0 - 5 cm soil in Valley East

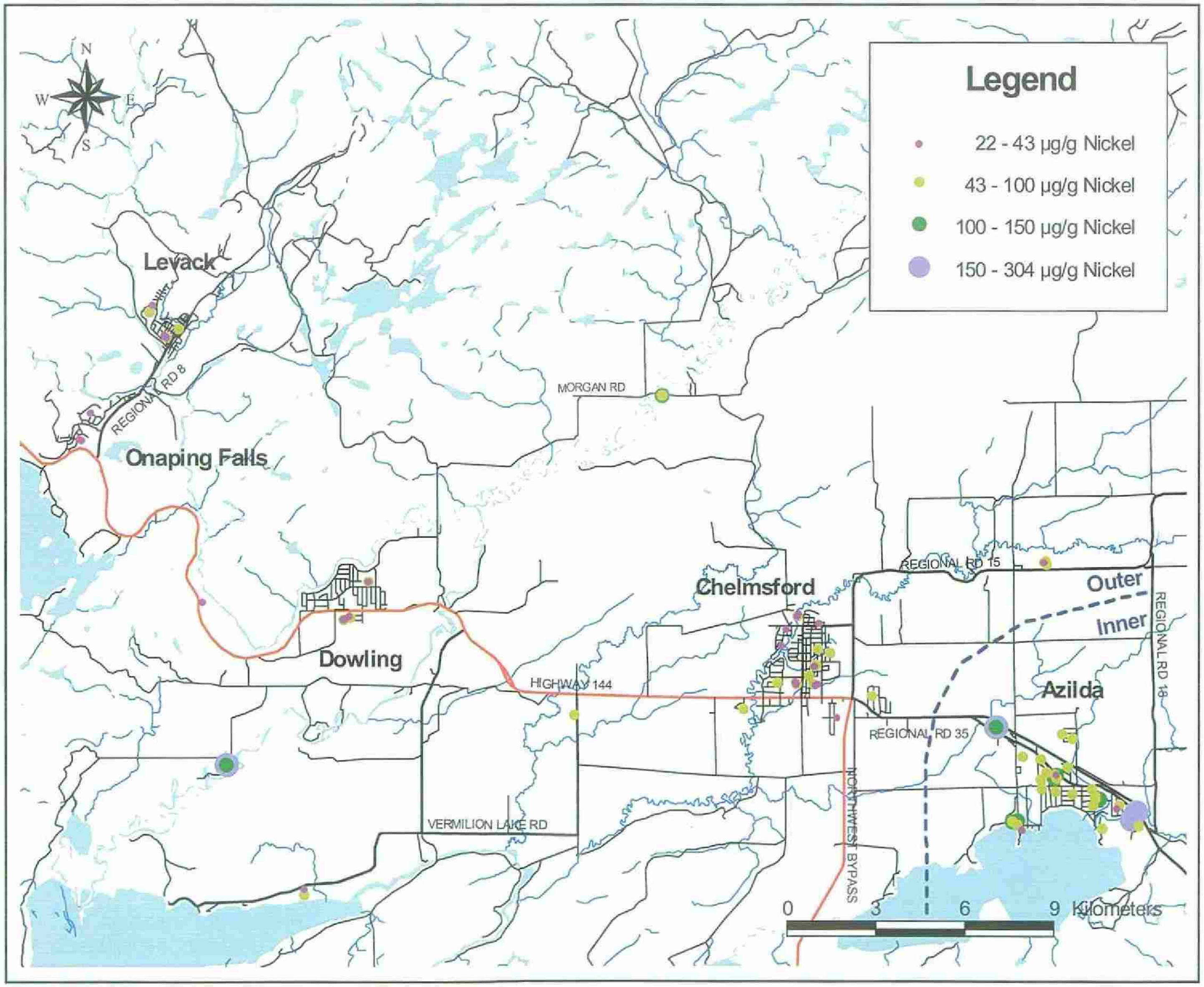


Map 10.2.8.4: As concentrations in urban 0 - 5 cm soil in Valley East

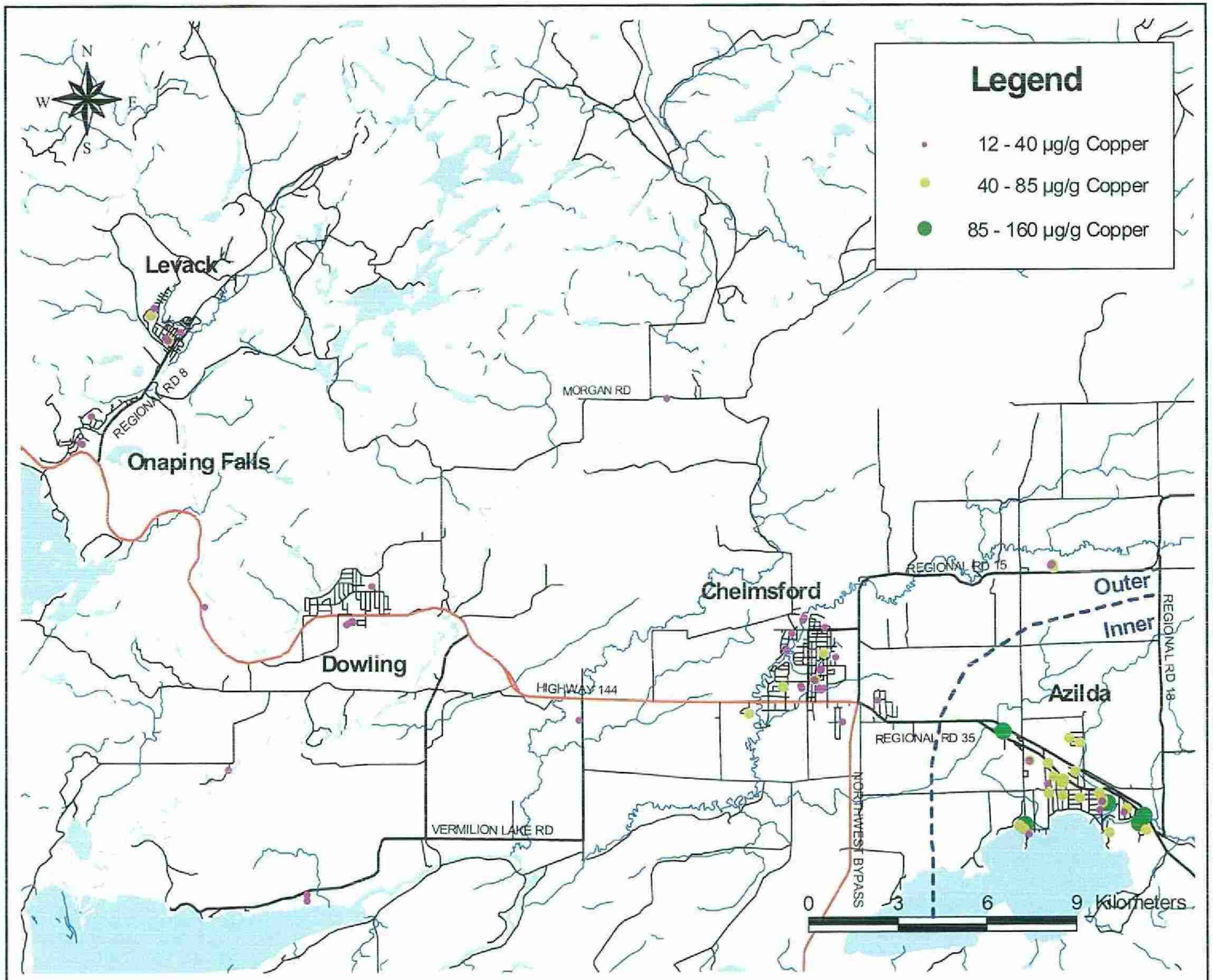


Map 10.2.8.5: Pb concentrations in urban 0 - 5 cm soil in Valley East

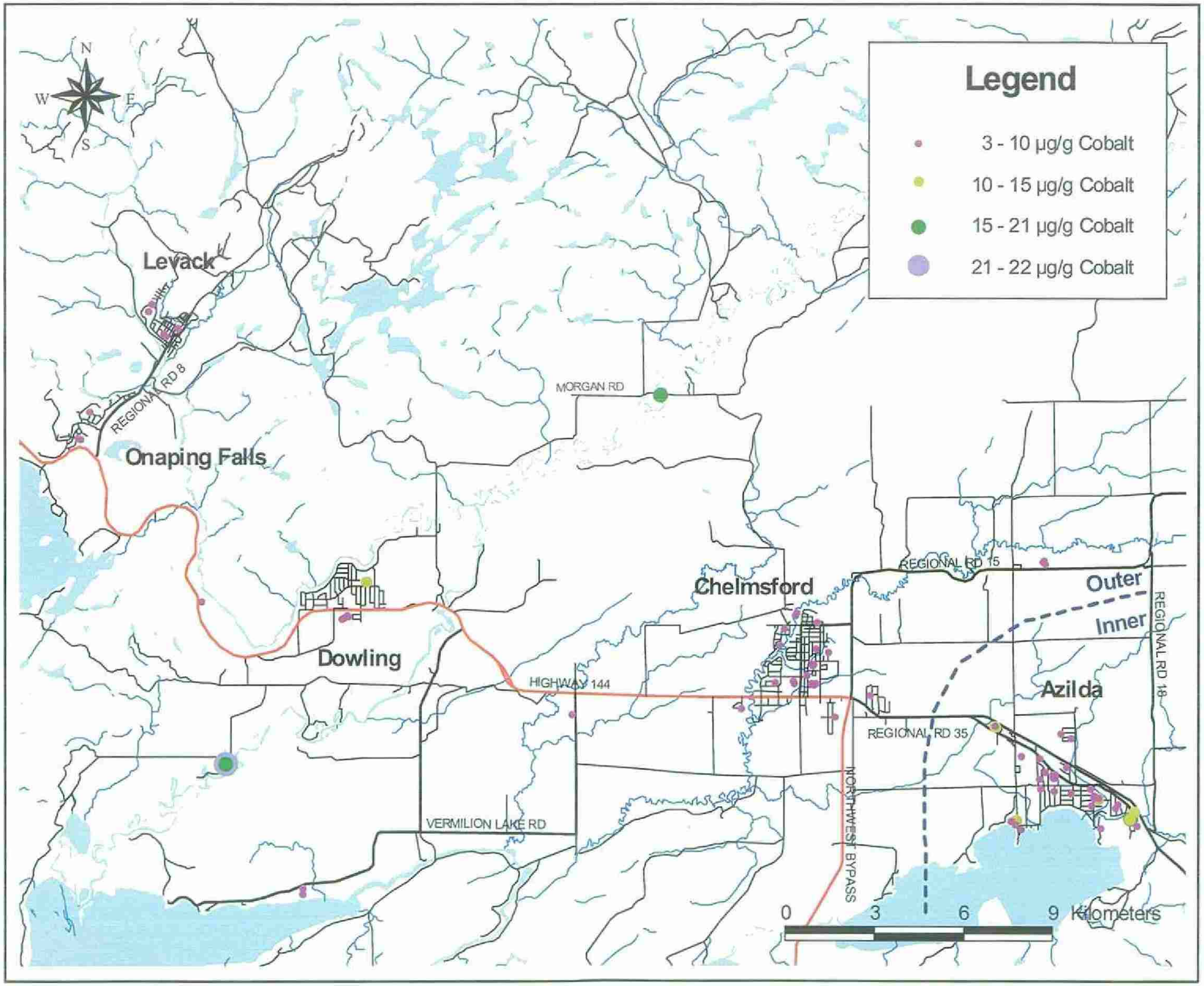
10.2.9 Valley West



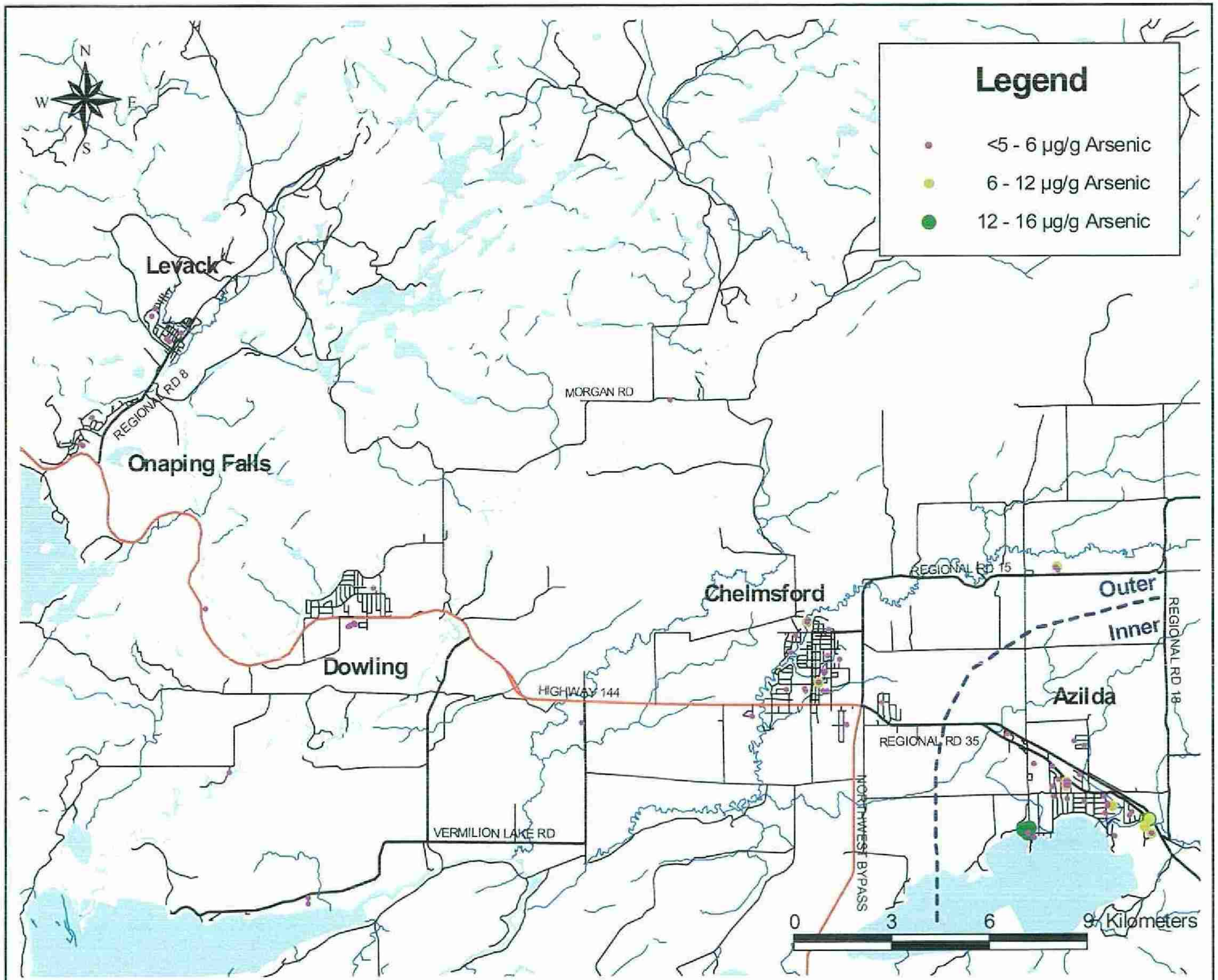
Map 10.2.9.1: Ni concentrations in urban 0 - 5 cm soil in Valley West



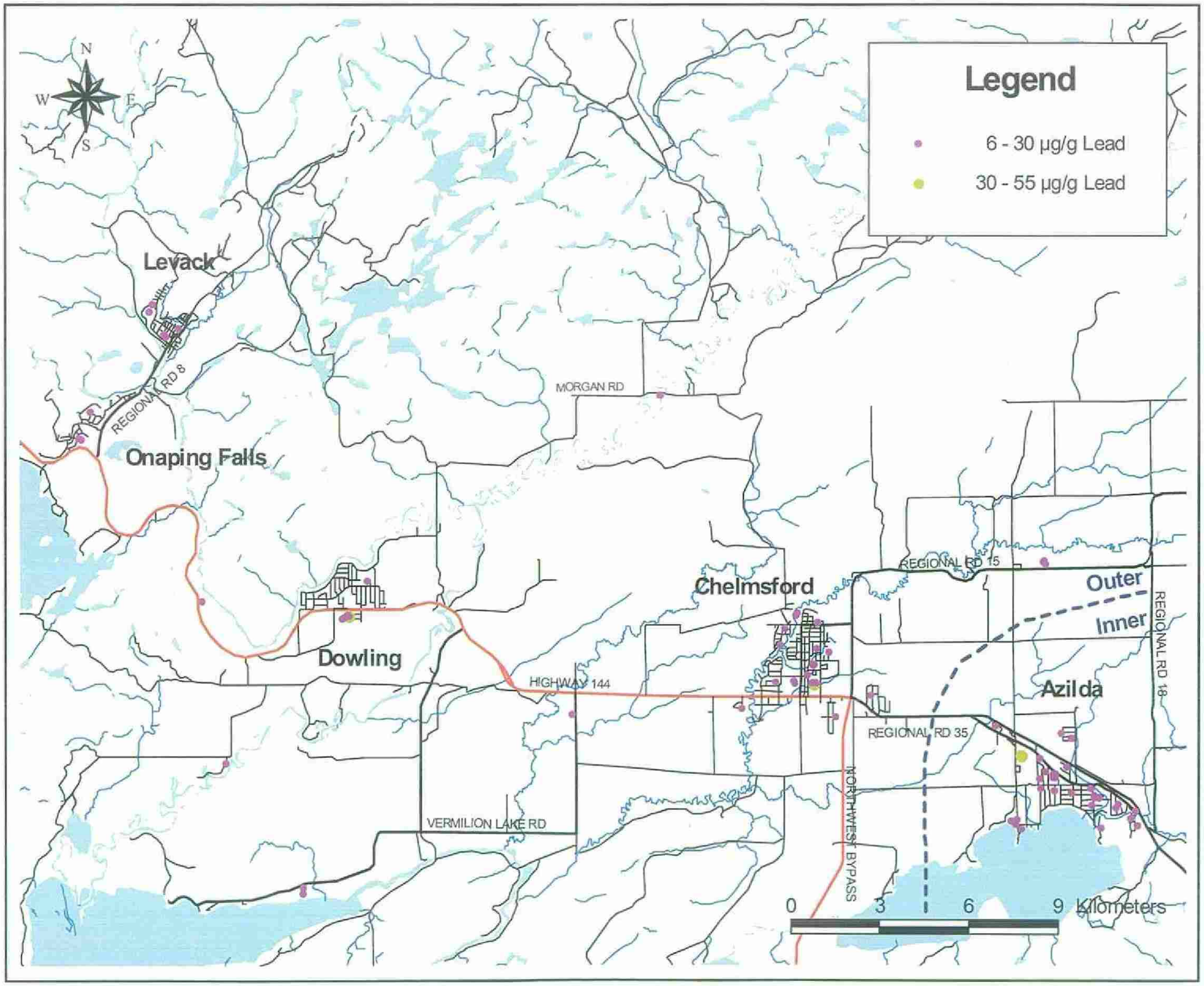
Map 10.2.9.2: Cu concentrations in urban 0 - 5 cm soil in Valley West



Map 10.2.9.3: Co concentrations in urban 0 - 5 cm soil in Valley West



Map 10.2.9.4: As concentrations in urban 0 - 5 cm soil in Valley West



Map 10.2.9.5: Pb concentrations in urban 0 - 5 cm soil in Valley West

10.3

10.3 Data Summary Statistics for all Communities within the City of Greater Sudbury

10.3.1 Urban Soil Summaries of Elements at All Three Depths

10.3.1.1 Outer Sudbury Communities

Table 10.3.1.1.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in the Outer Sudbury Communities.

Summary Statistic	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Outer Communities,						n = 284													
Minimum	4600	0.4	2.5	19	0.4	1600	18	3	9	8600	2	1200	100	0.75	17	0.5	13	8	13
10th percentile	7130	0.4	2.5	25	0.4	2700	22	4	21	11000	7	1800	140	0.75	32	0.5	23	23	19
1st quartile	8500	0.4	2.5	29	0.4	3200	24	5	26	12000	9	2100	160	0.75	39	0.5	28	26	22
Median	9700	0.4	2.5	35	0.4	4200	27	5	35	13000	11	2400	190	0.75	48	0.5	35	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5950	33	7	44	15000	14	3600	240	0.75	57	0.5	41	31	36
95th percentile	14000	0.4	7.0	68	0.4	11000	46	12	59	19850	35	5400	379	0.75	79	1.0	49	40	56
Maximum	27000	1.6	16	150	3.8	33000	67	22	97	33000	170	10000	650	1.70	151	1.2	76	78	78
Mean	9999	0.4	3.6	39	0.4	5133	30	6	36	13711	15	2943	210	0.76	50	0.5	35	29	31
Geometric mean	9689	0.4	3.1	36	0.4	4476	29	6	33	13378	12	2718	198	0.76	48	0.5	34	28	29
Sample std. dev.	2771	0.1	2.5	17	0.2	3473	8	3	14	3377	14	1342	83	0.09	18	0.1	9	7	12
CV (std. dev./mean)	28%	22%	70%	44%	57%	68%	28%	43%	38%	25%	95%	46%	40%	12%	35%	24%	27%	23%	39%
Lower CI of the mean	9675	0.4	3.3	37	0.4	4727	29	6	34	13316	13	2786	200	0.75	48	0.5	34	28	29
Upper CI of the mean	10324	0.4	3.9	41	0.5	5539	31	7	38	14106	17	3100	219	0.77	52	0.5	36	30	32
Kurtosis	10.1	108.0	11.4	13.6	154	154.6	22.1	4.3	7.6	2.3	6.9	53.3	5.1	7.1	71.0	5.3	13.4	0.9	11.9
Skewness	2.4	9.6	3.2	3.1	12.1	12.1	3.8	1.8	2.3	1.1	2.2	6.0	2.0	2.3	8.5	1.7	3.8	0.4	2.2
5 to 10 cm Urban Soil in the Outer Communities,						n = 228													
Minimum	4900	0.4	2.5	17	0.4	1200	17	3	7	7700	4	1100	99	0.75	18	0.5	13	21	12
10th percentile	7170	0.4	3	24	0.4	2270	22	4	16	11000	6	1700	130	0.8	28	0.5	21	24	17
1st quartile	8400	0.4	2.5	28	0.4	2800	24	4	22	12000	8	1900	150	0.75	33	0.5	27	26	19
Median	9950	0.4	2.5	35	0.4	3700	27	5	29	13000	9	2200	180	0.75	40	0.5	34	28	25
3rd quartile	11000	0.4	2.5	43	0.4	5100	32	6	35	15000	12	3400	230	0.75	51	0.5	40	32	31
95th percentile	15000	0.4	7.6	74	0.4	9455	46	12	53	20000	22	5565	317	0.75	70	0.5	49	40	62
Maximum	37000	1.8	23	210	0.4	38000	77	19	71	36000	91	12000	590	1.70	134	2.0	58	74	97
Mean	10428	0.4	3.4	40	0.4	4505	29	6	30	13850	11	2809	202	0.76	43	0.5	34	30	28
Geometric mean	9983	0.4	3.0	36	0.4	3905	28	6	28	13438	10	2538	190	0.75	41	0.5	33	29	26
Sample std. dev.	3714	0.2	3.0	23	0.0	3446	9	3	12	3906	9	1586	79	0.08	16	0.1	10	8	14
CV (std. dev./mean)	36%	37%	86%	58%	0%	77%	31%	44%	39%	28%	80%	57%	39%	11%	37%	27%	29%	26%	49%
Lower CI of the mean	9942	0.4	3.1	37	0.4	4055	28	6	28	13339	10	2602	191	0.75	41	0.5	33	29	26
Upper CI of the mean	10324	0.4	3.9	41	0.25	5539	31	7	38	14106	17	3100	219	0.77	52	0.5	36	30	32
Kurtosis	18.3	40.9	19.8	19.4		42.9	9.2	7.4	0.8	9.6	35.4	9.8	6.8	118	7.4	54.9	-0.5	10.5	6.4
Skewness	3.5	6.2	4.2	3.9		5.4	2.6	2.5	0.8	2.6	5.2	2.8	2.3	10.8	1.9	6.6	0.0	2.8	2.3
10 to 20 cm Urban Soil in the Outer Communities,						n = 213													
Minimum	4900	0.4	2.5	14	0.4	1400	15	3	4	7000	3	1400	85	0.75	13	0.5	12	17	9
10th percentile	6520	0.4	3	22	0.4	2100	21	4	11	10000	5	1700	130	0.8	22	0.5	20	22	15
1st quartile	8200	0.4	2.5	28	0.4	2800	23	4	17	11000	6	1900	160	0.75	27	0.5	26	25	19
Median	9500	0.4	2.5	35	0.4	3500	27	5	25	13000	9	2200	190	0.75	38	0.5	33	28	24
3rd quartile	11000	0.4	2.5	43	0.4	4500	32	6	33	16000	11	3300	235	0.75	48	0.5	41	33	31
95th percentile	16400	0.4	7.0	76	0.4	8180	47	11	47	23000	21	5900	384	0.75	68	0.5	50	45	58
Maximum	31000	4.0	44	210	0.9	20000	78	29	100	35000	214	11000	600	2.70	124	1.0	68	66	230
Mean	10174	0.4	3.4	40	0.4	4185	29	6	27	13935	11	2836	206	0.77	40	0.5	33	30	27
Geometric mean	9686	0.4	2.9	36	0.4	3665	28	5	23	13406	9	2539	193	0.76	37	0.5	32	29	25
Sample std. dev.	3636	0.3	3.8	25	0.0	2828	10	3	14	4329	16	1668	82	0.16	17	0.1	10	8	19
CV (std. dev./mean)	36%	73%	112%	63%	9%	68%	33%	50%	54%	31%	144	59%	40%	21%	42%	17%	31%	28%	68%
Lower CI of the mean	9681	0.4	2.9	37	0.4	3803	28	6	25	13349	9	2610	195	0.75	38	0.5	32	29	25
Upper CI of the mean	10666	0.5	4.0	43	0.4	4568	31	6	29	14521	13	3062	217	0.79	42	0.5	35	31	30
Kurtosis	10.1	91.3	66.5	16.1	213	14.1	5.7	21.7	5.4	5.3	116	7.6	4.6	112	4.2	26.1	-0.2	5.3	67.0
Skewness	2.5	9.2	7.4	3.6	14.6	3.4	2.0	3.7	1.7	2.0	10	2.6	1.9	10.2	1.5	5.3	0.2	2.0	6.7

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.1.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 12																		
Minimum	7500	0.4	2.5	24	0.4	1700	19	5	20	11000	7	1800	130	0.75	32	0.5	22	23	18
10^{th} percentile	7910	0.4	2.5	26	0.4	1820	20	5	22	12000	7	1830	143	0.75	34	0.5	22	24	23
1st quartile	8200	0.4	2.5	34	0.4	2250	23	5	28	12000	8	2150	170	0.75	36	0.5	23	25	26
Median	8900	0.4	2.5	41	0.4	2850	23	6	39	13000	10	2300	200	0.75	45	0.5	29	28	27
3rd quartile	11500	0.4	5.0	61	0.4	3250	29	7	46	14500	33	2650	220	0.75	50	0.5	30	30	40
95^{th} percentile	12000	0.4	6.5	69	0.4	3535	43	8	56	16000	37	2890	258	0.75	58	0.5	31	33	47
Maximum	12000	0.4	7.0	71	0.4	3700	47	8	57	16000	40	3000	280	0.75	59	0.5	33	35	49
Mean	9517	0.4	3.6	46	0.4	2758	27	6	38	13417	18	2342	197	0.75	44	0.5	27	28	31
Geometric mean	9380	0.4	3.3	43	0.4	2681	26	6	36	13328	14	2314	192	0.75	43	0.5	27	27	30
Sample std. dev.	1654	0.0	1.6	16	0.0	620	8	1	12	1552	13	357	40	0.00	9	0.0	4	3	9
CV (std. dev./mean)	18%	0%	47%	36%	0%	23%	31%	19%	32%	12%	75%	16%	21%	0%	20%	0%	14%	12%	32%
Lower CI of the mean	8419	0.4	2.5	35	0.4	2347	21	5	30	12387	9	2105	170	0.8	38	0.5	25	25	25
Upper CI of the mean	10614	0.4	4.6	56	0.4	3170	32	7	46	14447	26	2579	224	0.8	50	0.5	30	30	38
Kurtosis	-1.4		-0.3	-1.2		-0.9	2.3	-1.4	-1.1	-0.8	-1.3	-0.5	0.1		-0.8		-1.1	0.7	-0.7
Skewness	0.6		1.1	0.4		-0.5	1.7	0.4	0.0	0.4	0.9	0.2	0.3		0.3		-0.4	0.7	0.8
Schools and Daycares 0 to 5 cm				n = 95															
Minimum	5100	0.4	2.5	19	0.4	1700	18	3	12	8600	2	1200	100	0.75	17	0.5	16	20	13
10^{th} percentile	7740	0.4	2.5	27	0.4	2440	23	4	21	11000	6	1900	134	0.75	32	0.5	22	23	21
1st quartile	8600	0.4	2.5	30	0.4	3200	25	5	26	11000	10	2100	150	0.75	38	0.5	27	26	23
Median	9600	0.4	2.5	35	0.4	4200	28	5	38	13000	12	2600	200	0.75	50	0.5	33	28	27
3rd quartile	11000	0.4	5.5	44	0.4	6400	34	7	48	15000	16	3650	250	0.75	65	0.5	39	32	37
95^{th} percentile	13000	0.4	7.0	54	0.4	14300	46	10	69	17600	52	5460	330	0.75	83	1.0	48	37	52
Maximum	17000	0.8	8.0	81	0.8	33000	66	12	97	33000	170	8200	440	1.50	120	1.2	76	78	62
Mean	9769	0.4	3.6	37	0.4	5828	31	6	40	13587	18	3043	208	0.77	52	0.6	34	29	30
Geometric mean	9595	0.4	3.3	36	0.4	4770	30	6	36	13291	13	2821	198	0.77	49	0.5	32	29	29
Sample std. dev.	1844	0.1	1.7	10	0.1	4844	8	2	17	3177	22	1259	66	0.13	19	0.2	10	7	10
CV (std. dev./mean)	19%	17%	49%	28%	17%	84%	28%	34%	42%	24%	119	42%	32%	17%	37%	29%	30%	23%	34%
Lower CI of the mean	9392	0.4	3.2	35	0.4	4836	29	6	36	12937	14	2785	195	0.75	48	0.5	32	28	28
Upper CI of the mean	10147	0.4	4.0	40	0.4	6820	32	6	43	14238	23	3301	221	0.80	56	0.6	36	31	33
Kurtosis	1.6	28.2	-0.5	3.1	28.2	13.9	4.6	0.7	1.8	13.6	26.6	1.9	0.6	28.2	2.2	7.3	2.5	26.8	0.6
Skewness	0.5	5.4	1.1	1.4	5.4	3.3	1.8	1.1	1.1	2.7	4.5	1.3	0.8	5.4	1.2	3.0	1.0	4.1	1.0
Parks 0 to 5 cm	n = 177																		
Minimum	4600	0.4	2.5	19	0.4	1600	18	4	9	9300	4	1600	110	0.75	19	0.5	13	8	13
10^{th} percentile	6960	0.4	2.5	25	0.4	2860	22	4	20	11000	8	1800	140	0.75	33	0.5	24	23	19
1st quartile	8500	0.4	2.5	28	0.4	3300	24	5	26	12000	9	2100	160	0.75	39	0.5	31	26	22
Median	9700	0.4	2.5	34	0.4	4300	27	5	33	13000	11	2400	180	0.75	47	0.5	36	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5850	32	7	42	15000	14	3600	230	0.75	56	0.5	42	31	36
95^{th} percentile	15200	0.4	9.4	71	0.4	9520	45	12	55	21000	27	5440	420	0.75	78	0.5	49	41	59
Maximum	27000	1.6	16	150	3.8	19000	67	22	74	29000	66	10000	650	1.70	151	1.0	61	55	78
Mean	10155	0.4	3.6	39	0.4	4921	29	6	34	13797	13	2931	212	0.76	50	0.5	36	29	31
Geometric mean	9762	0.4	3.1	36	0.4	4479	29	6	32	13428	12	2693	198	0.75	47	0.5	35	28	29
Sample std. dev.	3201	0.1	2.8	20	0.3	2460	8	3	12	3563	7	1414	93	0.07	17	0.1	9	7	13
CV (std. dev./mean)	32%	25%	80%	51%	70%	50%	28%	47%	34%	26%	57%	48%	44%	9%	35%	20%	24%	24%	42%
Lower CI of the mean	9679	0.4	3.1	36	0.4	4555	28	6	32	13267	12	2720	198	0.74	47	0.5	35	28	29
Upper CI of the mean	10632	0.4	4.0	42	0.5	5287	31	7	36	14327	14	3141	225	0.77	52	0.5	38	30	33
Kurtosis	8.2	101.6	10.4	11.6	101.	9.0	4.6	6.7	0.6	4.4	16.0	5.9	6.8	177.0	7.8	17.7	0.1	4.4	2.7
Skewness	2.3	9.7	3.3	3.1	9.9	2.4	1.9	2.4	0.6	1.9	3.2	2.2	2.4	13.3	2.0	4.4	0.0	1.3	1.6

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.1.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 12															
Minimum	6800	0.4	2.5	29	0.4	1200	17	5	11	1100	4	2100	120	0.8	23	0.5	13	21	18
10th percentile	6960	0.4	2.5	30	0.4	1640	19	5	13	1110	4	2100	133	0.8	24	0.5	18	22	19
1st quartile	7750	0.4	2.5	36	0.4	2000	21	5	20	1250	6	2100	160	0.8	27	0.5	20	24	20
Median	8950	0.4	2.5	45	0.4	2100	22	5	27	1300	8	2300	170	0.8	34	0.5	23	27	26
3rd quartile	9950	0.4	2.5	48	0.4	2500	26	6	35	1350	14	2450	215	0.8	39	0.5	27	29	31
95th percentile	10900	0.4	2.5	63	0.4	2890	29	6	40	1545	25	2845	229	0.8	42	0.5	30	32	38
Maximum	12000	0.4	2.5	74	0.4	3000	30	7	42	1600	29	2900	240	0.8	43	0.5	31	34	43
Mean	8917	0.4	2.5	44	0.4	2175	23	5	27	1308	11	2342	179	0.8	33	0.5	23	27	26
Geometric mean	8803	0.4	2.5	43	0.4	2119	23	5	25	1301	9	2328	176	0.8	32	0.5	23	27	26
Sample std. dev.	1430	0.0	0.0	12	0.0	469	4	1	10	1382	8	260	36	0.0	7	0.0	5	4	7
CV (std. dev./mean)	17%	0%	0%	28%	0%	23%	17%	12%	37%	11%	74%	12%	21%	0%	21%	0%	22%	14%	28%
Lower CI of the mean	7968	0.4	2.5	37	0.4	1864	20	5	21	1216	6	2169	155	0.8	28	0.5	20	24	22
Upper CI of the mean	9866	0.4	2.5	52	0.4	2486	25	6	33	1400	16	2514	203	0.8	37	0.5	26	29	31
Kurtosis	0.3			2.2		0.5	-0.4	1.4	-0.9	0.5	1.1	0.5	-0.9		-1.3		0.0	0	0.7
Skewness	0.4			1.0		-0.2	0.6	1.5	-0.1	0.5	1.4	1.2	0.1		-0.1		-0.3	0.1	1
Schools and Daycares	5 to 10 cm						n = 40												
Minimum	6900	0.4	2.5	20	0.4	1600	20	3	11	7700	5	1100	100	0.8	21	0.5	14	21	15
10th percentile	7470	0.4	2.5	25	0.4	2000	22	4	18	10000	7	1700	128	0.8	29	0.5	16	22	18
1st quartile	8800	0.4	2.5	29	0.4	2200	24	4	21	11000	7	1800	140	0.8	32	0.5	21	24	19
Median	9950	0.4	2.5	33	0.4	4100	26	5	29	12000	8	2000	175	0.8	41	0.5	33	27	24
3rd quartile	11000	0.4	2.5	41	0.4	5700	34	6	38	14500	9	3400	230	0.8	52	0.5	40	32	27
95th percentile	12050	0.4	6.0	46	0.4	10400	38	7	49	16100	15	5125	271	0.8	58	0.5	48	36	41
Maximum	13000	0.4	6.0	49	0.4	38000	51	7	54	24000	44	5700	290	0.8	64	1.0	52	65	43
Mean	9928	0.4	3.2	34	0.4	5380	28	5	30	12810	10	2605	184	0.8	42	0.5	31	29	25
Geometric mean	9778	0.4	3.0	33	0.4	4050	28	5	28	12541	9	2401	176	0.8	41	0.5	29	28	24
Sample std. dev.	1691	0.0	1.3	8	0.0	6052	7	1	11	2803	6	1134	52	0.0	11	0.1	11	8	7
CV (std. dev./mean)	17%	0%	41%	23%	0%	114%	23%	23%	36%	22%	63%	44%	29%	0%	26%	15%	36%	27%	27%
Lower CI of the mean	9380	0.4	2.8	32	0.4	3420	26	4	26	11902	8	2238	167	0.8	39	0.5	28	26	23
Upper CI of the mean	10475	0.4	3.6	37	0.4	7340	31	5	33	13718	12	2972	200	0.8	46	0.5	35	31	27
Kurtosis	-0.8		0.4	-0.8		21.4	1.8	-0.5	-0.3	5.1	28.9	1.0	-0.9		-1.0	40.0	-1.2	12.3	1.3
Skewness	-0.1		1.5	0.3		4.3	1.2	0.7	0.5	1.6	5.1	1.3	0.4		0.0	6.3	-0.1	2.9	1.2
Parks 5 to 10 cm		n = 176																	
Minimum	4900	0.4	2.5	17	0.4	1700	18	3	7	9200	4	1400	99	0.8	18	0.5	14	21	12
10th percentile	7200	0.4	2.5	24	0.4	2500	22	4	16	11000	6	1700	130	0.8	28	0.5	23	24	16
1st quartile	8400	0.4	2.5	28	0.4	3050	24	4	22	12000	8	1900	150	0.8	34	0.5	30	26	20
Median	10000	0.4	2.5	35	0.4	3800	27	5	29	13000	10	2300	180	0.8	41	0.5	36	28	25
3rd quartile	11500	0.4	2.5	43	0.4	5100	32	7	35	15000	13	3450	235	0.8	52	0.5	42	32	33
95th percentile	17000	0.4	9.0	87	0.4	8625	47	12	54	20000	22	6600	413	0.8	73	1.0	49	40	64
Maximum	37000	1.8	23	210	0.4	22000	77	19	71	36000	91	12000	590	1.7	134	2.0	58	74	97
Mean	10644	0.4	3.6	41	0.4	4465	30	6	30	14139	12	2888	207	0.8	44	0.5	36	30	29
Geometric mean	10116	0.4	3.0	37	0.4	4037	29	6	28	13681	10	2585	195	0.8	41	0.5	34	30	26
Sample std. dev.	4101	0.2	3.3	26	0.0	2549	10	3	12	4180	10	1711	85	0.1	17	0.2	9	8	15
CV (std. dev./mean)	39%	41%	93%	63%	0%	57%	33%	47%	40%	30%	82%	59%	41%	12%	39%	29%	26%	26%	52%
Lower CI of the mean	10033	0.4	3.1	37	0.4	4085	29	6	28	13515	10	2632	195	0.7	42	0.5	34	29	27
Upper CI of the mean	11256	0.5	4.1	45	0.4	4846	32	7	32	14762	13	3143	220	0.8	47	0.6	37	31	31
Kurtosis	14.9	30.7	15.6	16		17.7	8.6	5.4	0.9	8.5	34	8.6	5.7	90.4	6.8	46	0	10	4.9
Skewness	3.3	5.4	3.8	3.6		3.5	2.6	2.2	0.8	2.5	5.2	2.7	2.2	9.5	1.9	6.1	0.0	2.8	2.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.1.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 10																	
Minimum	6000	0.4	2.5	27	0.4	1400	15	4	6	9400	3	2200	110	0.8	16	0.5	15	17	13
1st quartile	6300	0.4	2.5	28	0.4	1600	17	5	11	10000	3	2200	140	0.8	19	0.5	18	19	14
Median	8700	0.4	2.5	42	0.4	1900	23	5	17	13500	4	2450	170	0.8	24	0.5	22	27	27
3rd quartile	10000	0.4	5.0	49	0.4	2400	26	6	28	15000	20	2800	180	0.8	33	0.5	25	30	33
95th percentile	11000	0.4	6.1	67	0.4	2665	28	8	45	16000	25	3185	253	0.8	47	0.5	31	34	43
Maximum	11000	0.4	7.0	70	0.4	2800	28	8	47	16000	26	3500	280	0.8	49	0.5	32	35	50
Mean	8540	0.4	3.5	44	0.4	1990	22	6	21	13040	11	2530	173	0.8	28	0.5	22	26	27
Geometric mean	8349	0.4	3.2	41	0.4	1940	22	5	17	12816	7	2503	168	0.8	26	0.5	22	25	24
Sample std. dev.	1770	0.0	1.5	14	0.0	453	5	1	14	2344	9	393	46	0.0	11	0.0	5	6	11
CV (std. dev./mean)	22%	0%	47%	34%	0%	24%	22%	23%	69%	19%	91%	16%	28%	0%	41%	0%	25%	23%	44%
Lower CI of the mean	7205	0.4	2.3	33	0.4	1649	19	5	11	11272	4	2234	139	0.8	20	0.5	18	22	18
Upper CI of the mean	9875	0.4	4.6	54	0.4	2331	25	6	32	14808	17	2826	207	0.8	36	0.5	26	30	35
Kurtosis	-1.3		1.2	-0.4		-1.2	-1	0.3	-0.6	-1.3	-1.6	2.7	2.0		-0.2		-1	-1.1	0.4
Skewness	-0.1		1.5	0.6		0.4	0	0.8	0.8	-0.4	0.7	1.6	1.2		1.0		0.5	0	0.6
Schools and Daycares 10 to 20 cm							n = 32												
Minimum	7100	0.4	2.5	18	0.4	1400	19	3	4	7000	4	1500	85	0.8	13	0.5	12	18	12
10th percentile	7430	0.4	2.5	23	0.4	1810	20	3	12	9910	4	1700	101	0.8	22	0.5	15	21	14
1st quartile	8400	0.4	2.5	27	0.4	2100	23	4	14	10500	5	1800	135	0.8	24	0.5	18	23	18
Median	9500	0.4	2.5	33	0.4	3250	25	4	23	11500	7	1950	170	0.8	36	0.5	32	26	22
3rd quartile	11000	0.4	2.5	38	0.4	5100	30	5	31	13500	8	2800	205	0.8	47	0.5	41	31	26
95th percentile	12000	0.4	2.5	47	0.4	8080	44	6	43	20500	12	4610	303	0.8	56	0.5	47	47	37
Maximum	12000	0.4	2.5	50	0.4	12000	56	7	51	27000	17	5900	340	0.8	57	0.5	49	63	39
Mean	9647	0.4	2.5	33	0.4	3838	28	5	24	12559	7	2428	178	0.8	36	0.5	30	28	22
Geometric mean	9512	0.4	2.5	32	0.4	3338	27	4	21	12077	7	2265	168	0.8	34	0.5	27	27	21
Sample std. dev.	1613	0.0	0.0	8	0.0	2248	8	1	11	4073	3	1055	62	0.0	13	0.0	12	10	7
CV (std. dev./mean)	17%	0%	0%	24%	0%	60%	31%	23%	48%	33%	40%	44%	36%	0%	36%	0%	40%	35%	32%
Lower CI of the mean	9056	0.4	2.5	30	0.4	3014	24	4	19	11067	6	2042	155	0.8	31	0.5	26	25	20
Upper CI of the mean	10238	0.4	2.5	36	0.4	4661	31	5	28	14051	8	2815	201	0.8	41	0.5	34	32	25
Kurtosis	-1.2			-0.3		4.3	5.3	-0.4	-0.2	7.1	4.0	4.3	0.8		-1.1		-1.3	7.8	0.4
Skewness	0.2			0.3		1.8	2.2	0.6	0.5	2.5	1.7	2.1	0.9		0.0		-0.1	2.7	0.8
Parks 10 to 20 cm		n = 176																	
Minimum	4900	0.4	2.5	17	0.4	1700	18	3	7	9200	4	1400	99	0.8	18	0.5	14	21	12
10th percentile	7200	0.4	2.5	24	0.4	2500	22	4	16	11000	6	1700	130	0.8	28	0.5	23	24	16
1st quartile	8400	0.4	2.5	28	0.4	3050	24	4	22	12000	8	1900	150	0.8	34	0.5	30	26	20
Median	10000	0.4	2.5	35	0.4	3800	27	5	29	13000	10	2300	180	0.8	41	0.5	36	28	25
3rd quartile	11500	0.4	2.5	43	0.4	5100	32	7	35	15000	13	3450	235	0.8	52	0.5	42	32	33
95th percentile	17000	0.4	9.0	87	0.4	8625	47	12	54	20000	22	6600	413	0.8	73	1.0	49	40	64
Maximum	37000	1.8	23	210	0.4	22000	77	19	71	36000	91	12000	590	1.7	134	2.0	58	74	97
Mean	10644	0.4	3.6	41	0.4	4465	30	6	30	14139	12	2888	207	0.8	44	0.5	36	30	29
Geometric mean	10116	0.4	3.0	37	0.4	4037	29	6	28	13681	10	2585	195	0.8	41	0.5	34	30	26
Sample std. dev.	4101	0.2	3.3	26	0.0	2549	10	3	12	4180	10	1711	85	0.1	17	0.2	9	8	15
CV (std. dev./mean)	39%	41%	93%	63%	0%	57%	33%	47%	40%	30%	82%	59%	41%	12%	39%	29%	26%	26%	52%
Lower CI of the mean	10033	0.4	3.1	37	0.4	4085	29	6	28	13515	10	2632	195	0.7	42	0.5	34	29	27
Upper CI of the mean	11256	0.5	4.1	45	0.4	4846	32	7	32	14762	13	3143	220	0.8	47	0.6	37	31	31
Kurtosis	14.9	30.7	15.6	15.6		17.7	8.6	5.4	0.9	8.5	33.7	8.6	5.7	90.4	6.8	46.4	-0.3	10.1	4.9
Skewness	3.3	5.4	3.8	3.6		3.5	2.6	2.2	0.8	2.5	5.2	2.7	2.2	9.5	1.9	6.1	0.0	2.8	2.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.2 Inner Sudbury Communities

Table 10.3.1.2.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in the Inner Sudbury Communities.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Inner Communities,						n = 675													
Minimum	4100	0.4	2.5	15	0.2	1800	17	3	11	7500	2	1300	90	0.75	16	0.5	10	17	12
10th percentile	7400	0.4	2.5	29	0.4	3200	24	5	35	11000	8	2200	150	0.75	47	0.5	24	24	21
1st quartile	8500	0.4	2.5	34	0.4	3900	27	6	47	13000	10	2500	170	0.75	62	0.5	30	26	26
Median	9800	0.4	2.5	43	0.4	5000	31	7	67	14000	14	3100	200	0.75	84	0.5	36	29	32
3rd quartile	11000	0.4	6.0	53	0.4	6400	36	9	100	16000	22	3700	240	0.75	125	0.5	42	32	40
95th percentile	15000	0.8	11	82	0.8	10300	46	14	183	19000	49	5200	310	0.75	250	1.0	50	37	64
Maximum	19000	4.4	30	130	2.0	27000	70	42	1400	27000	220	13000	510	6.40	1400	6.0	170	47	150
Mean	10100	0.5	4.9	46	0.4	5475	32	8	88	14329	21	3306	210	0.79	109	0.6	36	30	35
Geometric mean	9828	0.4	4.0	44	0.4	5046	31	8	70	14080	16	3143	203	0.77	90	0.6	35	29	33
Sample std. dev.	2382	0.3	3.5	17	0.2	2516	7	4	92	2783	24	1191	55	0.28	101	0.4	10.8	4.7	15.8
CV (std. dev./mean)	24%	66%	72%	36%	37%	46%	23%	47%	105%	19%	114	36%	26%	35%	93%	65%	30%	16%	45%
Lower CI of the mean	9920	0.4	4.6	45	0.4	5285	31	8	81	14118	19	3216	206	0.77	101	0.6	35.7	29.2	34.2
Upper CI of the mean	10280	0.5	5.1	48	0.4	5665	32	9	95	14539	22	3396	214	0.81	116	0.7	37.3	29.9	36.6
Kurtosis	0.7	69.7	9.4	2.3	39.9	12.0	2.1	27.6	91.4	2.5	25.1	11.1	3.9	251.6	73.2	73.3	35.1	0.6	11.5
Skewness	0.7	7.5	2.5	1.3	5.8	2.5	1.0	4.2	7.9	1.1	4.6	2.5	1.3	13.8	7	7.3	3.2	0.5	2.6
5 to 10 cm Urban Soil in the Inner Communities,						n = 531													
Minimum	5100	0.4	2.5	15	0.4	1400	17	3	8	7500	1	1300	92	0.75	17	0.5	13	13	9
10th percentile	6900	0.4	2.5	26	0.4	2600	23	5	27	11000	6	2000	140	0.75	37	0.5	23	24	18
1st quartile	8400	0.4	2.5	33	0.4	3200	25	6	38	12000	8	2300	160	0.75	50	0.5	28	26	22
Median	9900	0.4	2.5	42	0.4	4100	30	7	54	14000	11	2900	190	0.75	68	0.5	34	30	27
3rd quartile	12000	0.4	7	53	0.4	5300	34	8	75	16000	14	3600	230	0.75	96	0.5	40	33	35
95th percentile	15000	0.4	11	86	0.4	9150	46	11	120	20000	27	5400	315	0.75	150	1.0	49	40	58
Maximum	22000	6.5	34	150	1.2	22000	75	29	880	26000	310	10000	440	3.20	880	5.0	65	50	160
Mean	10269	0.4	4.9	46	0.4	4672	31	7	64	14251	14	3120	201	0.78	80	0.6	34	30	31
Geometric mean	9923	0.4	4	43	0.4	4243	30	7	54	13951	11	2940	193	0.77	70	0.6	33	29	28
Sample std. dev.	2745	0.3	4.0	20	0.1	2398	8	3	57	3031	23	1181	59	0.20	60	0.3	9	6	15
CV (std. dev./mean)	27%	74%	81%	43%	18%	51%	25%	35%	90%	21%	162%	38%	30%	25%	75%	54%	26%	18%	50%
Lower CI of the mean	10035	0.4	4.6	44	0.4	4467	30	7	59	13992	12	3019	196	0.76	75	0.6	34	29	29
Upper CI of the mean	10504	0.5	5.2	48	0.4	4876	32	7	69	14509	16	3221	206	0.8	85	0.7	35	30	32
Kurtosis	0.7	248.2	15.8	4.3	56.1	10.9	2.9	15.6	119.5	1.3	107.0	5.2	1.2	65.1	84.7	62.4	-0.1	0.7	16.4
Skewness	0.8	14.6	3.2	1.7	7.3	2.6	1.3	2.7	9.2	0.9	9.8	1.8	1.0	7.4	7.3	6.2	0.2	0.6	3.1
10 to 20 cm Urban Soil in the Inner Communities,						n = 492													
Minimum	4900	0.4	2.5	16	0.4	1500	17	4	9	8000	2	1400	93	0.75	18	0.5	12	10	9
10th percentile	6200	0.4	2.5	24	0.4	2310	21	4	23	10000	5	2000	130	0.75	32	0.5	20	23	15
1st quartile	8000	0.4	2.5	33	0.4	3000	25	5	31	12000	6	2300	160	0.75	43	0.5	27	25	19
Median	9900	0.4	2.5	44	0.4	4000	29	7	46	14000	9	2900	200	0.75	58	0.5	34	29	25
3rd quartile	12000	0.4	6.0	62	0.4	5300	36	9	68	17000	13	3900	250	0.75	86	0.5	41	34	34
95th percentile	17000	0.4	11	100	0.4	9435	49	12	130	22000	28	6045	330	0.75	160	1.0	53	43	53
Maximum	23000	3.9	40	160	1.2	24000	69	21	340	30000	150	11000	430	21.00	360	2.0	60	62	110
Mean	10419	0.4	4.8	50	0.4	4561	31	7	56	14553	12	3269	205	0.81	71	0.6	34	30	29
Geometric mean	9858	0.4	3.9	45	0.4	4067	30	7	46	14110	9	3037	195	0.77	62	0.5	33	30	26
Sample std. dev.	3571	0.2	3.9	25	0.1	2564	9	2	40	3751	12	1379	64	0.92	45	0.2	10	7	14
CV (std. dev./mean)	34%	56%	82%	50%	17%	56%	30%	34%	71%	26%	105%	42%	31%	114%	63%	31%	30%	22%	49%
Lower CI of the mean	10102	0.4	4.4	48	0.4	4334	30	7	53	14220	11	3147	199	0.73	67	0.5	33	30	27
Upper CI of the mean	10736	0.5	5.1	53	0.4	4789	32	7	60	14885	13	3391	211	0.89	75	0.6	35	31	30
Kurtosis	0.9	124.4	25.4	2.4	81.5	11.0	1.6	3.3	12.0	1.4	44.6	3.8	0.3	471.4	9.6	10.4	-0.6	1.3	5.9
Skewness	1.0	10.5	3.8	1.4	8.8	2.6	1.2	1.3	2.7	1.0	5.6	1.7	0.7	21.5	2.4	2.9	0.2	0.8	2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.2.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 314																		
Minimum	5300	0.4	2.5	26	0.2	2000	17	4	20	7500	4	1800	120	0.75	30	0.5	14	17	15
10th percentile	7600	0.4	2.5	33	0.4	3500	26	6	41	12000	9	2200	150	0.75	53	0.5	27	25	24
1st quartile	8900	0.4	2.5	39	0.4	4000	28	6	56	13000	12	2500	180	0.75	70	0.5	32	27	29
Median	10000	0.4	5.0	49	0.4	4900	32	8	79	14000	17	3000	205	0.75	90	0.5	38	30	36
3rd quartile	12000	0.4	7.0	62	0.4	5900	38	10	120	16000	25	3600	240	0.75	140	0.5	42	33	47
95th percentile	15350	0.8	12	88	0.8	8135	47	15	217	20000	46	4700	310	1.50	270	1.0	50	38	71
Maximum	19000	2.5	30	130	2.0	18000	70	41	1400	27000	220	9200	450	6.40	1400	6.0	63	47	150
Mean	10687	0.5	5.5	53	0.4	5256	33	9	106	14803	23	3161	214	0.83	124	0.7	37	30	41
Geometric mean	10401	0.4	4.6	50	0.4	4962	32	8	83	14531	18	3044	207	0.79	100	0.6	36	30	37
Sample std. dev.	2505	0.3	3.9	19	0.2	2060	7	4	123	2979	23	971	53	0.40	129	0.5	8	5	19
CV (std. dev./mean)	23%	56%	70%	35%	43%	39%	22%	49	116	20%	104%	31%	25%	49%	105%	75%	22%	16%	46%
Lower CI of the mean	10408	0.4	5.1	51	0.4	5027	32	8	93	14472	20	3053	208	0.78	109	0.6	36	30	38
Upper CI of the mean	10966	0.5	6.0	55	0.5	5485	34	9	120	15134	25	3269	219	0.87	138	0.7	38	31	43
Kurtosis	0.3	36.3	8.0	1.2	28.8	11.3	1.8	25.	56.3	2.7	31.3	10.4	2.1	120.3	54.1	59.5	0.1	0.8	8.8
Skewness	0.6	5.8	2.2	1.1	4.9	2.7	0.9	4.2	6.6	1.2	5.0	2.4	1.1	9.6	6.5	6.8	-0.1	0.5	2.4
Schools and Daycares 0 to 5 cm			n = 175																
Minimum	4100	0.4	2.5	15	0.4	2000	20	3	11	8500	2	1600	110	0.75	16	0.5	14	20	12
10th percentile	7340	0.4	2.5	28	0.4	2900	24	5	26	11000	6	2300	150	0.75	38	0.5	23	24	20
1st quartile	8200	0.4	2.5	32	0.4	3600	28	6	39	12500	9	2600	170	0.75	57	0.5	28	26	25
Median	9200	0.4	2.5	40	0.4	5100	31	7	56	14000	12	3100	200	0.75	73	0.5	33	29	29
3rd quartile	10300	0.4	6.0	45	0.4	6900	35	9	100	15000	21	4000	230	0.75	120	0.5	41	32	35
95th percentile	12000	0.5	8.0	53	0.5	11000	43	13	160	17300	113	5460	270	0.75	205	1.2	48	34	52
Maximum	14000	4.4	9.0	70	1.6	18000	67	42	370	24000	200	9200	380	1.60	630	4.0	170	39	75
Mean	9249	0.5	3.8	39	0.4	5584	32	8	73	13809	24	3426	202	0.75	95	0.6	35	29	31
Geometric mean	9089	0.4	3.5	38	0.4	5083	31	7	60	1363	15	3255	198	0.75	78	0.6	33	29	29
Sample std. dev.	1640	0.4	1.9	9	0.2	2541	7	4	50	2296	33	1196	42	0.06	72	0.4	14	4	11
CV (std. dev./mean)	18%	89%	51%	23%	36%	46%	22%	54	68%	17%	136%	35%	21%	9%	76%	64%	41%	12%	35%
Lower CI of the mean	9003	0.4	3.6	38	0.4	5204	31	7	65	1346	19	3247	196	0.75	84	0.6	33	28	29
Upper CI of the mean	9494	0.5	4.1	41	0.5	5964	33	9	80	14153	29	3605	208	0.76	105	0.7	37	29	33
Kurtosis	0.5	53.9	-0.3	1.1	31.1	2.9	4.9	31.	8.7	3.3	8.9	4.7	0.8	175	19.6	34.5	45.0	-0.5	3.6
Skewness	-0.3	7.0	1.0	0.4	5.3	1.3	1.6	4.9	2.3	1.1	3.0	1.7	0.5	13.2	3.5	5.1	5.2	0	1.6
Parks 0 to 5 cm	n = 186																		
Minimum	4900	0.4	2.5	18	0.4	1800	17	4	13	9100	3	1300	90	0.75	25	0.5	10	17	13
10th percentile	6900	0.4	2.5	26	0.4	2900	22	5	32	11000	7	2200	140	0.75	45	0.5	23	22	19
1st quartile	8200	0.4	2.5	31	0.4	4000	24	6	45	12000	10	2400	160	0.75	62	0.5	29	25	25
Median	9600	0.4	2.5	40	0.4	5000	28	8	60	14000	13	3200	200	0.75	82	0.5	36	28	30
3rd quartile	11000	0.4	6.0	49	0.4	6600	34	9	79	15000	17	3800	240	0.75	110	0.5	44	32	36
95th percentile	15000	0.4	12	74	0.4	12000	45	14	168	19000	26	6250	318	0.75	247	1.0	56	37	51
Maximum	17000	2.6	27	95	1.0	27000	57	20	230	22000	50	13000	510	0.75	304	1.0	80	42	77
Mean	9911	0.4	4.7	42	0.4	5741	30	8	70	14018	14	3438	211	0.75	96	0.6	37	29	31
Geometric mean	9612	0.4	3.8	39	0.4	5154	29	8	61	13765	13	3211	202	0.75	84	0.5	35	28	29
Sample std. dev.	2485	0.2	3.8	15	0.1	3093	7	3	41	2727	7	1465	67	0.00	57	0.2	11	5	11
CV (std. dev./mean)	25%	51%	81%	36%	15%	54%	25%	35	58%	20%	50%	43%	32%	0%	59%	29%	30%	17%	34%
Lower CI of the mean	9551	0.4	4.1	40	0.4	5293	29	8	64	13622	13	3226	201	0.75	88	0.5	35	28	29
Upper CI of the mean	10272	0.5	5.2	44	0.4	6190	31	9	76	14413	15	3651	221	0.75	105	0.6	38	29	32
Kurtosis	0.3	60.4	7.7	1.3	90.5	13.1	1.3	1.3	3.2	0.3	6.2	11.2	4.3		3.1	3.7	1.1	0.1	3.3
Skewness	0.7	7.4	2.4	1.1	9.6	2.8	1.1	1.0	1.7	0.7	2.0	2.6	1.5		1.8	2.4	0.6	0.5	1.4

All concentrations in μg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.2.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 310															
Minimum	5200	0.4	2.5	17	0.4	1800	17	4	8	7500	3	1600	110	0.8	17	0.5	13	17	9
10th percentile	6900	0.4	2.5	29	0.4	2800	23	5	31	11000	6	2100	150	0.8	40	0.5	24	24	19
1st quartile	8400	0.4	2.5	36	0.4	3300	26	6	43	12000	9	2300	160	0.8	53	0.5	29	26	23
Median	10000	0.4	2.5	45	0.4	4200	31	7	60	14000	12	2900	190	0.8	70	0.5	35	30	28
3rd quartile	13000	0.4	7.0	59	0.4	5200	36	8	87	16000	16	3600	230	0.8	110	1.0	41	33	36
95th percentile	16000	0.4	11	92	0.4	8200	46	11	140	20550	33	5355	320	1.2	160	1.0	49	42	63
Maximum	22000	6.5	34	150	1.0	22000	75	29	880	26000	310	10000	400	3.2	880	5.0	64	50	120
Mean	10590	0.5	5.1	51	0.4	4630	32	7	73	14583	17	3128	205	0.8	86	0.7	35	31	33
Geometric mean	10197	0.4	4.2	47	0.4	4292	31	7	60	14254	13	2971	198	0.8	74	0.7	34	30	30
Sample std. dev.	2950	0.4	4.0	22	0.1	2211	8	3	70	3214	29	1127	57	0.3	71	0.4	9	6	16
CV (std. dev./mean)	28%	91%	78%	43%	19%	48%	25%	37%	97%	22%	171	36%	28%	32%	82%	59%	25%	19%	49%
Lower CI of the mean	10259	0.4	4.7	48	0.4	4383	31	7	65	14223	14	3002	199	0.8	78	0.7	34	30	31
Upper CI of the mean	10920	0.5	5.5	53	0.4	4877	33	8	80	14942	21	3254	211	0.8	94	0.8	36	31	35
Kurtosis	0.4	160.9	18.0	3.4	31.6	20.7	3.8	19.8	85.2	1.4	63.2	7.8	0.7	36.5	73.0	42	0	0.7	7.7
Skewness	0.7	12.0	3.3	1.6	5.6	3.6	1.4	3.4	8.1	1.0	7.6	2.2	1.0	5.6	7.3	5.2	0.2	0.6	2.4
Schools and Daycares 5 to 10 cm						n = 40													
Minimum	5400	0.4	2.5	20	0.4	1600	20	4	14	9800	2	1500	110	0.8	23	0.5	13	20	15
10th percentile	7200	0.4	2.5	25	0.4	2270	24	5	28	11000	5	1800	140	0.8	42	0.5	19	25	18
1st quartile	8600	0.4	2.5	29	0.4	2700	25	5	34	12000	7	2300	150	0.8	49	0.5	24	26	21
Median	9400	0.4	2.5	34	0.4	3450	28	6	47	13000	9	2650	170	0.8	61	0.5	30	30	23
3rd quartile	10000	0.4	6.0	39	0.4	4600	32	7	66	14000	11	3350	195	0.8	79	0.5	35	32	33
95th percentile	11240	0.4	8.1	45	0.4	9440	38	8	89	16050	14	5285	291	0.8	111	0.5	40	36	41
Maximum	12000	0.4	15	53	0.4	17000	47	10	100	17000	16	8500	310	0.8	130	0.5	41	37	50
Mean	9200	0.4	4.4	34	0.4	4355	29	6	51	13320	9	3073	182	0.8	65	0.5	29	29	26
Geometric mean	9053	0.4	3.7	34	0.4	3744	29	6	46	13211	8	2851	177	0.8	61	0.5	28	29	25
Sample std. dev.	1556	0.0	2.7	7	0.0	3023	6	1	22	1704	3	1366	47	0.0	25	0.0	7	4	9
CV (std. dev./mean)	17%	0%	63%	21%	0%	70%	20%	21%	43%	13%	35%	45%	26%	0%	39%	0%	24%	13%	34%
Lower CI of the mean	8696	0.4	3.5	32	0.4	3376	27	6	44	12768	8	2630	167	0.8	57	0.5	27	28	24
Upper CI of the mean	9704	0.4	5.2	37	0.4	5334	31	7	58	13872	10	3515	197	0.8	74	0.5	32	30	29
Kurtosis	0.5		4.4	0.1		8.7	2.3	-0.2	-0.6	-0.1	0.0	6.1	1.2		0.5		-0.5	0.2	0.2
Skewness	-0.6		1.8	0.3		2.8	1.3	0.4	0.5	0.2	0.2	2.2	1.3		0.8		-0.3	-0.1	1
Parks 5 to 10 cm		n = 181																	
Minimum	5100	0.4	2.5	15	0.4	1400	17	3	10	9300	1	1300	92	0.8	20	0.5	13	13	12
10th percentile	6800	0.4	2.5	23	0.4	2500	21	5	25	11000	6	1900	130	0.8	34	0.5	22	23	17
1st quartile	8200	0.4	2.5	31	0.4	2950	24	5	33	12000	7	2100	150	0.8	45	0.5	27	25	20
Median	9700	0.4	2.5	38	0.4	4000	28	7	46	13000	10	2800	200	0.8	64	0.5	34	29	25
3rd quartile	11000	0.4	6.0	49	0.4	5800	34	9	66	16000	12	3700	230	0.8	89	0.5	41	32	31
95th percentile	15000	0.4	15	68	0.4	10000	45	12	100	19000	17	5400	310	0.8	140	1.0	50	39	46
Maximum	18000	1.6	32	100	1.2	14000	53	18	180	22000	22	8100	440	0.8	300	1.0	65	44	160
Mean	9957	0.4	4.7	41	0.4	4813	30	7	52	13888	10	3116	199	0.8	73	0.5	34	29	28
Geometric mean	9663	0.4	3.7	38	0.4	4277	29	7	46	13611	9	2908	190	0.8	64	0.5	33	28	26
Sample std. dev.	2477	0.1	4.2	15	0.1	2537	8	2	27	2845	4	1227	64	0	42	0.1	9	5	14
CV (std. dev./mean)	25%	31%	90%	38%	19%	53%	25%	34%	52%	21%	36%	39%	32%	0%	57%	22%	28%	18%	51%
Lower CI of the mean	9593	0.4	4.1	39	0.4	4440	29	7	48	13469	9	2935	190	0.8	67	0.5	33	28	26
Upper CI of the mean	10322	0.4	5.3	43	0.4	5186	31	8	56	14306	11	3297	209	0.8	80	0.5	36	30	30
Kurtosis	0.5	79.0	12.5	2.4	89.6	2.1	0.8	2.0	3.1	0.0	0.5	1.8	1.6		7.0	14	0	0.3	44.1
Skewness	0.7	8.8	3.1	1.3	9.5	1.5	1.0	1.1	1.4	0.7	0.6	1.3	1.0		2.1	3.9	0.2	0.3	5.2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.2.4: Summary Statistics for All 10 -20 cm Urban Soil Samples in the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 306																	
Minimum	4900	0.4	2.5	16	0.4	1500	17	4	9	8000	3	1500	100	0.8	18	0.5	13	17	9
10th percentile	6200	0.4	2.5	25	0.4	2500	22	4	24	10000	5	2100	130	0.8	33	0.5	22	23	16
1st quartile	7900	0.4	2.5	35	0.4	3200	25	5	34	12000	7	2300	160	0.8	43	0.5	28	26	20
Median	10000	0.4	2.5	48	0.4	4100	29	7	50	14000	9	3000	200	0.8	59	0.5	34	30	26
3rd quartile	13000	0.4	6.0	67	0.4	5300	37	9	73	17000	14	3900	250	0.8	86	0.5	41	35	35
95th percentile	18000	0.4	10	110	0.4	8675	51	12	130	22000	32	6475	330	0.8	168	1.0	53	44	60
Maximum	23000	3.9	21	160	0.8	24000	65	16	340	30000	150	11000	430	21	330	2.0	60	62	110
Mean	10623	0.4	4.7	54	0.4	4627	32	7	59	14777	13	3352	209	0.8	72	0.6	35	31	30
Geometric mean	9999	0.4	4.0	48	0.4	4187	31	7	49	14314	10	3115	200	0.8	62	0.6	33	30	27
Sample std. dev.	3787	0.3	3.2	27	0.1	2493	9	2	40	3866	15	1438	64	1.2	44	0.2	10	7	16
CV (std. dev./mean)	36%	61%	67%	50%	12%	54%	29%	33%	67%	26%	113	43%	31%	138%	61%	34%	28%	22%	52%
Lower CI of the mean	10197	0.4	4.4	51	0.4	4346	31	7	55	14341	11	3190	202	0.7	67	0.6	34	30	28
Upper CI of the mean	11050	0.5	5.1	57	0.4	4908	33	7	64	15213	15	3514	216	1.0	77	0.6	36	32	32
Kurtosis	0.6	109.6	4.5	1.8	57.2	17.1	1.5	1.1	11.4	1.6	33.2	4.7	0.3	293.3	5.0	8.2	-0.4	1.5	4.7
Skewness	0.9	9.8	1.8	1.3	7.7	3.2	1.1	0.9	2.5	1.0	5.0	1.9	0.8	17.0	1.9	2.5	0.2	0.9	1.9
Schools and Day Cares 10 to 20 cm							n = 28												
Minimum	5200	0.4	2.5	21	0.4	1900	19	4	16	9100	4	1700	110	0.8	26	0.5	17	22	12
10th percentile	6150	0.4	2.5	25	0.4	2340	21	4	23	9850	5	1900	120	0.8	38	0.5	19	24	16
1st quartile	7350	0.4	2.5	29	0.4	2550	23	5	28	11000	6	2050	140	0.8	41	0.5	22	25	18
Median	8400	0.4	3.8	32	0.4	2750	26	5	36	12000	7	2300	160	0.8	49	0.5	26	26	22
3rd quartile	9450	0.4	6.0	37	0.4	3650	28	7	47	13000	9	3000	175	0.8	68	0.5	29	30	24
95th percentile	10720	0.4	8.0	41	0.4	9195	33	8	70	14650	12	4985	220	0.8	94	0.5	38	31	28
Maximum	11000	0.4	9.0	43	0.4	13000	34	11	92	15000	14	6500	230	0.8	100	0.5	39	34	45
Mean	8354	0.4	4.4	32	0.4	3704	26	6	39	12039	7	2721	161	0.8	56	0.5	26	27	22
Geometric mean	8207	0.4	3.9	32	0.4	3250	25	6	36	1192	7	2560	158	0.8	53	0.5	25	27	21
Sample std. dev.	1512	0.0	2.1	6	0.0	2476	4	2	17	1624	2	1099	30	0.0	20	0.0	6	3	6
CV (std. dev./mean)	18%	0%	48%	18%	0%	68%	15%	28%	44%	14%	33%	41%	19%	0%	35%	0%	24%	11%	28%
Lower CI of the mean	7757	0.4	3.6	30	0.4	2726	24	5	32	11398	7	2287	149	0.8	48	0.5	24	26	19
Upper CI of the mean	8951	0.4	5.2	35	0.4	4681	27	6	46	12681	8	3156	173	0.8	64	0.5	29	28	24
Kurtosis	-0.4		-0.9	-0.5		7.3	-0.4	3.1	2.3	-0.8	0.4	4.4	0.1		-0.3		0	-0.7	7.5
Skewness	-0.3		0.6	-0.1		2.7	0.4	1.5	1.3	0.0	0.8	2.1	0.5		0.8		0.6	0.4	2
Parks 10 to 20 cm		n = 158																	
Minimum	5100	0.4	2.5	20	0.4	1500	17	4	13	8300	2	1400	93	0.8	23	0.5	12	10	11
10th percentile	6470	0.4	2.5	24	0.4	2100	21	5	21	10000	5	1800	120	0.8	32	0.5	20	22	15
1st quartile	8100	0.4	2.5	32	0.4	2900	24	6	27	12000	6	2200	150	0.8	41	0.5	26	25	19
Median	9800	0.4	2.5	40	0.4	3900	28	7	41	14000	9	2900	200	0.8	60	0.5	34	29	25
3rd quartile	13000	0.4	6.0	57	0.4	5300	37	9	60	17000	12	3900	250	0.8	89	0.5	42	34	32
95th percentile	16150	0.4	15.00	87	0.4	10300	48	12	122	22000	19	5900	322	0.8	142	1.0	53	42	45
Maximum	23000	2.8	40.00	120	1.2	15000	69	21	300	27000	64	7100	410	0.8	360	1.0	59	51	86
Mean	10389	0.4	5.0	46	0.4	4585	31	7	53	14563	10	3206	205	0.8	73	0.5	34	30	27
Geometric mean	9907	0.4	3.8	42	0.4	4002	30	7	43	1413	9	2980	195	0.8	62	0.5	33	29	25
Sample std. dev.	3270	0.2	5.2	20	0.1	2684	9	3	41	3629	7	1278	67	0.0	49	0.1	11	7	11
CV (std. dev./mean)	32%	48%	106%	44%	24%	59%	30%	35%	78%	25%	68%	40%	33%	0%	67%	25%	31%	23%	42%
Lower CI of the mean	9874	0.4	4.1	43	0.4	4162	30	7	46	13991	9	3004	195	0.8	65	0.5	33	29	25
Upper CI of the mean	10905	0.5	5.8	49	0.4	5009	32	8	59	1513	11	3407	216	0.8	80	0.6	36	31	29
Kurtosis	0.8	122.9	22.9	1.4	50.2	3.2	1.4	6.1	12.7	0.5	26.9	0.2	0.1		14.3	8.6	-1	0.4	6.1
Skewness	0.8	10.8	4.1	1.2	7.2	1.8	1.1	1.7	3.0	0.8	4.2	1.0	0.6		3.1	3.2	0.1	0.5	1.8

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.3 Sudbury Core

Table 10.3.1.3.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in the Sudbury Core.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Sudbury Core, n = 324																			
Minimum	4000	0.4	2.5	17	0.4	1500	19	4	17	9000	1	1500	110	0.75	20	0.5	13	20	13
10th percentile	7500	0.4	2.5	31	0.4	3230	25	6	56	12000	9	2200	150	0.75	69	0.5	23	24	24
1st quartile	8400	0.4	2.5	37	0.4	4000	28	8	99	13000	17	2600	170	0.75	111	0.5	29	26	33
Median	9900	0.4	6.0	49	0.4	5100	32	11	190	15000	29	3000	200	0.75	200	1.0	37	29	47
3rd quartile	12000	0.4	10	72	1.0	6950	39	17	365	18000	65	3600	230	0.75	350	2.0	43	32	86
95th percentile	14000	1.0	20	119	1.9	11000	53	35	84	24850	140	5285	300	0.75	935	4.0	51	37	159
Maximum	20000	2.7	34	210	4.1	16000	110	75	16	36000	320	9800	1200	3.2	2000	9.0	84	42	230
Mean	10095	0.5	8.0	58	0.7	5753	35	15	28	16240	47	3223	210	0.77	294	1.4	36	30	64
Geometric mean	9817	0.4	6.3	52	0.6	5274	33	12	18	15783	31	3091	201	0.76	203	1.0	35	29	52
Sample std. dev.	2368	0.2	6.0	28	0.6	2504	11	10	267	4146	47	1033	84	0.17	290	1.3	10	4	43
CV (std. dev./mean)	23%	52%	75%	49%	81%	44%	31%	70%	95	26%	99%	32%	40%	22%	99%	90%	28%	15%	67%
Lower CI of the mean	9836	0.4	7.3	55	0.7	5479	34	13	251	15786	42	3110	201	0.75	262	1.3	35	29	59
Upper CI of the mean	10355	0.5	8.6	61	0.8	6027	36	16	30	16694	52	3337	219	0.79	326	1.5	37	30	69
Kurtosis	0.7	32.3	4.3	3.0	6.2	1.5	10.6	7.1	5.6	3.1	6.9	7.8	71.6	151.1	7.9	7.6	1.2	-0.3	1.2
Skewness	0.5	5.1	1.9	1.5	2.3	1.2	2.5	2.3	2.1	1.5	2.2	2.1	7.0	11.6	2.5	2.3	0.4	0.4	1.3
5 to 10 cm Urban Soil in the Sudbury Core, n = 273																			
Minimum	4400	0.4	2.5	17	0.4	1500	17	3	12	9400	2	1400	110	0.75	18	0.5	10	20	12
10th percentile	7600	0.4	2.5	28	0.4	2600	23	6	45	12000	9	2020	140	0.75	58	0.5	22	24	21
1st quartile	8800	0.4	5.0	37	0.4	3300	27	7	75	13000	13	2300	160	0.75	90	0.5	28	27	29
Median	10000	0.4	7.0	54	0.4	4300	31	10	130	15000	21	2700	200	0.75	170	1.0	35	30	41
3rd quartile	12000	0.4	11	70	0.4	5800	37	13	245	18000	45	3250	230	0.75	280	1.0	42	34	74
95th percentile	15000	0.9	18	110	1.0	8490	50	19	425	21000	110	4345	300	0.75	480	2.0	49	40	120
Maximum	20000	1.5	24	160	1.5	14000	59	36	830	26000	310	7200	480	2.40	970	5.0	71	46	210
Mean	10587	0.4	8	58	0.5	4761	32	11	174	15633	37	2915	202	0.77	202	1.1	35	30	55
Geometric mean	10260	0.4	6.7	52	0.4	4360	31	10	131	15343	24	2793	195	0.76	154	0.9	34	30	45
Sample std. dev.	2715	0.2	4.8	28	0.2	2135	8	5	133	3064	39	933	55	0.16	151	0.7	10	5	37
CV (std. dev./mean)	26%	41%	59%	48%	46%	45%	26%	45%	77%	20%	106	32%	27%	20%	75%	67%	28%	16%	68%
Lower CI of the mean	10263	0.4	7.5	54	0.4	4506	31	10	159	15267	32	2804	195	0.75	184	1.0	34	30	50
Upper CI of the mean	10911	0.5	8.6	61	0.5	5016	33	11	190	15999	41	3027	209	0.79	220	1.2	37	31	59
Kurtosis	1.3	14.1	0.1	1.6	8.5	2.9	0.8	4.2	4.3	-0.1	10.7	4.3	2.7	70.8	4.3	3.6	-0.1	0.3	2.8
Skewness	0.9	3.9	0.9	1.2	3.1	1.5	0.9	1.5	1.7	0.6	2.7	1.7	1.2	8.2	1.7	1.7	0.2	0.6	1.6
10 to 20 cm Urban Soil in the Sudbury Core, n = 271																			
Minimum	4700	0.4	2.5	17	0.4	1400	18	3	11	9000	2	1300	110	0.75	15	0.5	11	19	10
10th percentile	6900	0.4	2.5	32	0.4	2300	21	6	42	12000	8	2000	140	0.75	57	0.5	20	24	21
1st quartile	8050	0.4	5	39	0.4	2900	25	7	58	13000	11	2300	160	0.75	77	0.5	27	26	28
Median	10000	0.4	6.0	51	0.4	3900	29	9	100	15000	21	2700	190	0.75	130	1.0	34	29	39
3rd quartile	12000	0.4	9.0	71	0.4	5500	36	11	170	17000	38	3400	230	0.75	210	1.0	42	33	61
95th percentile	17000	1.0	15	130	0.4	8500	50	16	350	22000	120	5700	320	0.75	405	2.0	52	41	125
Maximum	22000	2.8	22	240	1.3	13000	64	28	530	28000	470	8300	390	2.90	820	4.0	66	50	340
Mean	10465	0.5	7.1	61	0.4	4451	31	9	132	15397	34	3013	201	0.77	163	0.9	34	30	51
Geometric mean	9993	0.4	6	54	0.4	4032	30	9	102	15026	22	2845	194	0.76	130	0.8	33	29	42
Sample std. dev.	3337	0.2	4.0	35	0.1	2125	9	4	101	3520	45	1151	58	0.16	122	0.6	11	6	38
CV (std. dev./mean)	32%	53%	57%	57%	31%	48%	29%	40%	77%	23%	132	38%	29%	21%	75%	68%	31%	20%	75%
Lower CI of the mean	10065	0.4	6.6	57	0.4	4196	30	9	119	14975	29	2875	194	0.75	148	0.9	33	29	47
Upper CI of the mean	10864	0.5	7.6	66	0.4	4705	32	10	144	15818	40	3151	208	0.79	177	1	36	31	56
Kurtosis	1.8	38.2	1.9	5.0	20.2	2.3	1.5	3.9	3.4	0.9	34.5	4	0.9	117.5	6.8	7.1	-0.4	1.0	13.7
Skewness	1.2	5.4	1.3	1.9	4.6	1.4	1.2	1.6	1.8	1.0	4.7	1.9	1.1	10.3	2.2	2.4	0.2	1.0	2.9

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.3.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm		n = 184																	
Minimum	5900	0.4	2.5	25	0.4	1500	20	4	28	11000	7	1500	120	0.75	33	0.5	15	20	17
10th percentile	7730	0.4	5.0	34	0.4	3330	26	8	113	13000	18	2200	150	0.75	123	0.5	23	24	34
1st quartile	8600	0.4	6.0	46	0.4	4000	29	11	200	14000	31	2500	170	0.75	195	1.0	28	27	46
Median	10000	0.4	9.0	60	0.9	5150	34	15	315	17000	50	2900	200	0.75	300	1.5	37	29	74
3rd quartile	12000	0.4	13	86	1.3	6750	42	21	475	19000	86	3500	230	0.75	465	2.0	43	33	110
95th percentile	14000	1.1	21	120	2.2	10850	56	44	920	27000	160	4400	300	0.75	1043	4.8	49	38	179
Maximum	17000	2.7	34	210	4.1	15000	110	75	1600	36000	320	6000	1200	3.20	2000	9.0	84	42	230
Mean	10316	0.5	10	68	1.0	5730	37	18	392	17386	67	3039	216	0.78	400	1.9	37	30	84
Geometric mean	10084	0.5	9.1	62	0.8	5283	36	15	301	16876	51	2953	205	0.77	306	1.5	35	30	72
Sample std. dev.	2201	0.3	6.1	30	0.7	2395	13	11	292	4488	52	747	104	0.22	321	1.4	11	5	46
CV (std. dev./mean)	21%	60%	58%	44%	74%	42%	34%	63%	75%	26%	78%	25%	48%	28%	81%	76%	29%	15%	55%
Lower CI of the mean	9995	0.4	10	64	0.9	5381	35	16	349	16731	60	2930	201	0.75	353	1.7	35	29	77
Upper CI of the mean	10637	0.5	11	73	1.1	6079	39	20	434	18040	75	3148	232	0.81	446	2.1	38	31	91
Kurtosis	-0.1	21.3	3.1	1.9	3.0	1.1	7.9	4.7	3.7	2.3	4.4	1.3	52.9	84.8	5.2	5.5	1.8	-0.4	0
Skewness	0.4	4.2	1.6	1.1	1.6	1.1	2.2	1.9	1.7	1.3	1.8	0.9	6.4	8.7	2	2.0	0.5	0.3	0.8
Schools and Daycares 0 to 5 cm						n = 45													
Minimum	5800	0.4	2.5	21	0.4	2400	21	4	19	9000	3	1900	110	0.75	20	0.5	20	21	17
10th percentile	7020	0.4	2.5	28	0.4	3080	25	5	27	11000	6	2100	150	0.75	38	0.5	23	25	18
1st quartile	7950	0.4	2.5	32	0.4	3500	26	7	50	12000	8	2300	170	0.75	63	0.5	27	27	22
Median	8700	0.4	2.5	37	0.4	4000	29	8	92	13000	16	3000	180	0.75	110	0.5	32	28	31
3rd quartile	9600	0.4	6.0	43	0.4	5650	32	9	150	1400	22	3400	200	0.75	160	0.5	35	29	39
95th percentile	11000	0.4	8.8	52	0.7	8720	39	21	496	1880	69	4480	228	0.75	376	3.0	41	33	91
Maximum	12000	0.4	14	53	1.3	11000	51	28	530	21000	75	5800	270	0.75	660	4.0	52	37	130
Mean	8691	0.4	4.5	37	0.4	4707	30	9	129	13373	20	3007	184	0.75	140	0.9	32	28	37
Geometric mean	8586	0.4	3.8	37	0.4	4407	30	8	90	13177	14	2896	182	0.75	104	0.7	31	28	33
Sample std. dev.	1340	0.0	2.9	8	0.2	1899	6	5	129	2413	18	868	28	0	126	0.8	7	3	23
CV (std. dev./mean)	16%	0%	65%	20%	43%	41%	19%	55%	101%	18%	92%	29%	16%	0%	91%	97%	21%	10%	62%
Lower CI of the mean	8284	0.4	3.6	35	0.4	4130	28	7	90	12640	14	2743	175	0.75	101	0.6	30	27	30
Upper CI of the mean	9098	0.4	5.4	40	0.5	5284	32	10	168	14106	25	3270	193	0.75	178	1.1	34	29	44
Kurtosis	0.0		2.8	-0.3	16.0	2.6	4.6	5.6	4.3	2.4	3.8	2.0	1.4		6.6	5.3	1	1.7	6.6
Skewness	0.1		1.6	0.2	4.1	1.6	1.8	2.4	2.2	1.3	2.1	1.2	0.3		2.4	2.5	0.6	0.5	2.4
Parks 0 to 5 cm	n = 95																		
Minimum	4000	0.4	2.5	17	0.4	2100	19	5	17	9900	1	2000	110	0.75	24	0.5	13	21	13
10th percentile	7580	0.4	2.5	27	0.4	3040	24	6	48	12000	8	2380	150	0.75	60	0.5	27	24	21
1st quartile	8600	0.4	2.5	35	0.4	4500	27	7	70	13000	12	2900	170	0.75	83	0.5	31	26	26
Median	10000	0.4	2.5	44	0.4	5600	31	10	110	15000	20	3200	210	0.75	130	0.5	37	29	37
3rd quartile	12000	0.4	6.0	55	0.4	7850	36	12	160	17000	26	3950	250	0.75	195	1.0	46	34	46
95th percentile	15000	0.4	8.0	74	0.9	11000	45	17	240	20000	41	6230	293	0.75	290	2.0	52	37	67
Maximum	20000	1.5	32	120	1.7	16000	50	55	950	30000	101	9800	310	0.75	1528	3.5	60	40	140
Mean	10334	0.4	4.7	46	0.5	6293	32	11	134	15378	21	3683	210	0.75	162	0.8	38	30	38
Geometric mean	9932	0.4	3.9	43	0.4	5724	31	10	108	15102	17	3484	204	0.75	127	0.7	37	29	35
Sample std. dev.	2795	0.2	4.1	18	0.2	2785	7	6	114	3111	14	1379	51	0.00	171	0.5	10	4	18
CV (std. dev./mean)	27%	35%	89%	39%	46%	44%	22%	60%	85%	20%	65%	38%	24%	0%	106%	70%	25%	15%	47%
Lower CI of the mean	9761	0.4	3.8	43	0.4	5722	31	9	111	14741	18	3401	200	0.75	127	0.7	36	29	35
Upper CI of the mean	10906	0.5	5.5	50	0.5	6863	33	12	157	16015	24	3966	221	0.75	197	0.9	40	31	42
Kurtosis	0.8	36.0	26.6	4.1	12.7	1.6	-0.4	27.7	29.3	4.5	12.3	4.7	-0.9		44.0	9.4	-0.1	-0.7	10.3
Skewness	0.3	6.0	4.6	1.5	3.4	1.1	0.4	4.4	4.6	1.6	2.5	1.9	0.2		5.9	2.9	-0.2	0.3	2.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.3.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm			n = 182																
Minimum	5100	0.4	2.5	18	0.4	1500	18	4	17	9400	5	1400	110	0.8	23	0.5	10	20	16
10th percentile	7500	0.4	5.0	30	0.4	2600	23	6	68	12000	10	2000	140	0.8	79	0.5	21	24	24
1st quartile	8300	0.4	5.0	41	0.4	3200	27	8	120	14000	17	2300	160	0.8	120	1.0	27	26	30
Median	10000	0.4	9.0	60	0.4	4000	31	11	200	15000	34	2700	190	0.8	227	1.0	34	30	61
3rd quartile	12000	0.4	13	78	0.4	5400	37	14	290	18000	64	3100	230	0.8	330	2.0	41	33	84
95th percentile	14000	1.0	18	120	1.1	8990	50	20	449	21000	140	3900	300	0.8	519	3.0	51	39	150
Maximum	20000	1.4	24	160	1.5	14000	59	36	830	26000	310	6600	480	2.1	970	5.0	71	46	210
Mean	10234	0.5	9.7	63	0.5	4647	32	12	219	15711	48	2773	201	0.8	248	1.3	34	30	66
Geometric mean	9946	0.4	8.6	57	0.5	4220	31	11	176	15437	33	2684	194	0.8	199	1.1	33	29	55
Sample std. dev.	2514	0.2	4.6	29	0.3	2270	8	5	139	2978	44	759	55	0.1	160	0.8	10	5	41
CV (std. dev./mean)	25%	45%	48%	46%	52%	49%	26%	44%	64%	19%	92%	27%	27%	19%	65%	59%	29%	15%	62%
Lower CI of the mean	9865	0.4	9.0	59	0.5	4314	31	11	199	15274	41	2661	193	0.8	225	1.2	33	29	60
Upper CI of the mean	10602	0.5	10	67	0.5	4980	33	12	240	16148	54	2884	209	0.8	272	1.4	36	30	72
Kurtosis	1.9	8.1	-0.3	0.9	4.2	3.7	0.8	3.4	3.5	-0.1	7.6	5.9	4.3	52.2	3.4	2.4	0.4	0.6	1.3
Skewness	1.0	3.1	0.6	1.0	2.3	1.8	0.9	1.4	1.4	0.5	2.2	1.8	1.5	7.1	1.4	1.3	0.3	0.6	1.1
Schools and Daycares 5 to 10 cm						n = 12													
Minimum	6900	0.4	2.5	29	0.4	2300	18	4	41	1100	8	1700	110	0.8	49	0.5	17	23	23
10th percentile	7590	0.4	2.5	30	0.4	2360	24	5	43	11000	8	1710	122	0.8	55	0.5	22	25	25
1st quartile	9050	0.4	2.5	31	0.4	2950	25	5	50	11500	9	1800	145	0.8	62	0.5	27	26	26
Median	9950	0.4	4.3	34	0.4	3350	26	7	64	12000	12	2250	195	0.8	72	0.5	30	27	28
3rd quartile	11000	0.4	7.0	38	0.4	4750	30	7	83	13500	16	2750	220	0.8	96	0.5	35	30	34
95th percentile	11450	0.4	8.9	47	0.4	5690	35	10	191	14900	24	3090	240	0.8	255	1.0	43	33	40
Maximum	12000	0.4	10	56	0.4	5800	38	13	240	16000	30	3200	240	0.8	370	1.0	45	33	42
Mean	9775	0.4	4.9	36	0.4	3725	27	7	83	12583	13	2317	183	0.8	103	0.6	31	28	30
Geometric mean	9660	0.4	4.2	35	0.4	3548	26	6	72	12505	12	2264	178	0.8	85	0.6	30	28	29
Sample std. dev.	1441	0.0	2.6	7	0.0	1195	5	2	55	1441	6	500	44	0.0	85	0.2	7	3	6
CV (std. dev./mean)	15%	0%	55%	20%	0%	34%	19%	35%	69%	12%	48%	23%	25%	0%	86%	33%	25%	11%	20%
Lower CI of the mean	8819	0.4	3.2	31	0.4	2932	24	5	47	11627	9	1985	154	0.8	47	0.5	26	26	26
Upper CI of the mean	10731	0.4	6.6	40	0.4	4518	30	8	120	13540	17	2648	213	0.8	160	0.7	36	30	34
Kurtosis	0.0		-1.1	6.0		-0.8	1.6	5.3	5.1	1.0	3.9	-1.1	-1.4		8.7	2.6	0.3	-0.4	-0.1
Skewness	-0.7		0.5	2.2		0.8	0.7	2.0	2.2	1.1	1.9	0.4	-0.3		2.9	2.1	0.2	0.7	1
Parks 5 to 10 cm		n = 79																	
Minimum	4400	0.4	2.5	17	0.4	1900	17	3	12	9400	2	1600	110	0.8	18	0.5	18	21	12
10th percentile	8600	0.4	2.5	26	0.4	2960	24	5	39	12000	8	2200	140	0.8	41	0.5	26	25	19
1st quartile	9300	0.4	2.5	37	0.4	3850	28	6	50	14000	10	2400	160	0.8	67	0.5	31	28	27
Median	11000	0.4	2.5	44	0.4	5100	33	9	78	16000	13	3000	200	0.8	100	0.5	39	31	34
3rd quartile	13000	0.4	6.0	56	0.4	6500	39	11	110	18000	19	3800	250	0.8	142	1.0	45	36	39
95th percentile	18000	0.4	8.0	77	0.4	8310	52	13	143	23000	33	5930	292	0.8	210	1.0	53	42	50
Maximum	19000	1.5	20	130	0.4	1000	58	20	360	24000	59	7200	360	2.4	423	2.0	57	46	74
Mean	11524	0.4	4.7	48	0.4	5181	34	9	85	15916	16	3335	208	0.8	110	0.6	38	32	33
Geometric mean	11122	0.4	4.0	44	0.4	4847	33	8	72	15604	13	3161	201	0.8	95	0.6	37	31	31
Sample std. dev.	3053	0.1	3.0	21	0.0	1814	9	3	50	3192	9	1168	56	0.2	63	0.3	9	6	11
CV (std. dev./mean)	27%	30%	64%	43%	0%	35%	26%	33%	59%	20%	59%	35%	27%	24%	57%	41%	25%	18%	32%
Lower CI of the mean	10836	0.4	4.0	43	0.4	4772	32	8	74	15197	13	3072	195	0.7	96	0.6	36	31	31
Upper CI of the mean	12212	0.4	5.4	53	0.4	5590	36	9	96	16636	18	3599	221	0.8	124	0.7	41	33	36
Kurtosis	0.3	79.0	9.2	5.2		-0.4	0.9	1.4	10.4	0.0	6.0	1.5	-0.2	79.0	6.9	7.5	-1	-0.3	1.5
Skewness	0.6	8.9	2.4	1.8		0.3	0.8	0.7	2.3	0.5	1.9	1.3	0.5	8.9	1.9	2.3	-0.1	0.3	0.5

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.3.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 182																	
Minimum	4700	0.4	2.5	17	0.4	1400	18	5	17	9000	4	1300	110	0.8	30	0.5	11	19	10
10th percentile	6800	0.4	5.0	32	0.4	2200	20	6	51	11000	8	2000	140	0.8	67	0.5	19	23	21
1st quartile	7600	0.4	5.0	40	0.4	2800	24	7	83	12000	15	2200	150	0.8	110	0.5	25	25	31
Median	9500	0.4	8.0	56	0.4	3650	29	9	140	15000	27	2600	180	0.8	170	1.0	32	28	52
3rd quartile	12000	0.4	10	83	0.4	4700	34	12	200	17000	53	3000	230	0.8	240	1.0	42	33	78
95th percentile	16000	1.0	17	140	0.9	8785	50	18	410	24000	130	5295	330	0.8	489	2.0	52	41	159
Maximum	21000	2.0	22	240	1.3	13000	62	28	530	28000	470	8300	390	2.9	820	4.0	66	50	340
Mean	10117	0.5	8.4	67	0.4	4252	31	10	161	15212	44	2875	200	0.8	196	1.1	33	29	61
Geometric mean	9638	0.4	7.6	59	0.4	3821	29	9	129	14789	28	2714	191	0.8	160	0.9	32	29	49
Sample std. dev.	3330	0.2	4.0	39	0.2	2202	9	4	110	3783	52	1133	62	0.2	133	0.7	11	6	44
CV (std. dev./mean)	33%	49%	48%	58%	36%	52%	31%	41%	68%	25%	119	40%	31%	25%	68%	66%	33%	21%	72%
Lower CI of the mean	9629	0.4	7.8	62	0.4	3929	29	9	145	14657	36	2709	190	0.7	176	1.0	32	28	54
Upper CI of the mean	10605	0.5	9.0	73	0.5	4575	32	11	177	15766	52	3041	209	0.8	215	1.2	35	30	67
Kurtosis	1.7	13.3	1.5	3.3	12.1	3.3	1.4	3.1	1.8	0.9	25.3	5.7	0.8	94.8	4.9	4.5	-0.3	1.3	9.8
Skewness	1.2	3.5	1.3	1.6	3.6	1.8	1.2	1.5	1.4	1.1	4.1	2.2	1.1	9.4	1.9	2.0	0.3	1.1	2.4
Schools and Daycares 10 to 20 cm						n = 11													
Minimum	6600	0.4	2.5	24	0.4	2200	22	4	25	1200	7	1800	140	0.8	35	0.5	15	22	22
10th percentile	8100	0.4	2.5	29	0.4	2200	24	4	25	12000	7	2000	150	0.8	37	0.5	20	25	23
1st quartile	8100	0.4	2.5	32	0.4	2800	24	5	36	12000	7	2100	160	0.8	54	0.5	21	26	23
Median	11000	0.4	2.5	37	0.4	3100	28	6	49	13000	10	2200	190	0.8	74	0.5	28	27	27
3rd quartile	11000	0.4	5.0	41	0.4	4000	29	8	94	14000	20	2900	220	0.8	110	0.5	34	31	31
95th percentile	11100	0.4	6.5	42	0.4	5400	33	10	140	15000	25	2950	225	0.8	165	0.5	44	33	35
Maximum	11200	0.4	7.0	42	0.4	5500	33	11	160	15000	27	3000	230	0.8	170	0.5	45	33	37
Mean	9827	0.4	3.7	36	0.4	3391	27	7	70	13273	13	2418	188	0.8	87	0.5	29	28	28
Geometric mean	9694	0.4	3.4	36	0.4	3246	27	6	59	13232	11	2384	186	0.8	77	0.5	28	28	27
Sample std. dev.	1529	0.0	1.6	5	0.0	1059	3	2	41	1052	7	409	29	0.0	44	0.0	9	3	5
CV (std. dev./mean)	16%	0%	47%	16%	0%	33%	13%	31%	62%	8%	55%	18%	16%	0%	52%	0%	32%	12%	17%
Lower CI of the mean	8750	0.4	2.5	32	0.4	2645	25	5	41	12531	8	2130	168	0.8	56	0.5	23	26	24
Upper CI of the mean	10904	0.4	4.8	40	0.4	4137	30	8	99	14014	18	2706	209	0.8	118	0.5	35	31	31
Kurtosis	-0.3		-0.6	0.3		0.4	-0.6	0.7	0.2	-0.9	-0.6	-1.6	-1.3		-0.3		-0.6	-1	-0.2
Skewness	-1.0		1.0	-1.0		1.1	0.2	0.7	0.9	0.4	0.9	0.2	-0.2		0.8		0.3	-0.3	0.7
Parks 10 to 20 cm		n = 78																	
Minimum	5200	0.4	2.5	19	0.4	2000	18	3	11	11000	2	1800	120	0.8	15	0.5	22	22	13
10th percentile	8100	0.4	2.5	31	0.4	2570	25	6	36	13000	8	2270	150	0.8	53	0.5	26	25	20
1st quartile	9200	0.4	2.5	38	0.4	3600	28	7	46	14000	10	2600	170	0.8	62	0.5	30	28	27
Median	11000	0.4	2.5	48	0.4	4900	32	8	65	16000	12	3250	190	0.8	84	0.5	38	31	32
3rd quartile	13000	0.4	6.0	59	0.4	6300	37	10	96	18000	19	3800	230	0.8	129	1.0	44	35	38
95th percentile	18450	0.4	8.1	84	0.4	8415	50	13	140	21000	34	5915	302	0.8	187	1.0	52	40	46
Maximum	22000	2.8	10	130	0.4	11000	64	16	160	25000	43	7400	340	1.6	220	1.5	62	48	55
Mean	11365	0.4	4.4	51	0.4	5064	33	9	72	16128	15	3418	206	0.8	97	0.7	38	31	32
Geometric mean	10918	0.4	3.9	48	0.4	4713	33	8	64	15878	13	3255	201	0.8	86	0.6	36	31	31
Sample std. dev.	3367	0.3	2.3	20	0.0	1894	8	3	34	2875	9	1151	49	0.1	47	0.2	9	5	9
CV (std. dev./mean)	30%	65%	52%	40%	0%	38%	25%	31%	47%	18%	57%	34%	24%	13%	48%	38%	23%	17%	28%
Lower CI of the mean	10601	0.4	3.9	46	0.4	4634	32	8	64	15476	13	3157	195	0.7	86	0.6	36	30	30
Upper CI of the mean	12130	0.5	4.9	56	0.4	5494	35	9	80	16781	17	3679	217	0.8	108	0.7	39	33	34
Kurtosis	2.0	63.2	-0.6	4.2		0.3	2.1	-0.1	-0.3	0.1	1.5	2.0	0.2	78.0	0	-0.2	-0.4	0.5	-0.2
Skewness	1.2	7.8	0.8	1.7		0.6	1.1	0.3	0.6	0.5	1.3	1.4	0.8	8.8	0.8	1	0.2	0.7	0.2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.4 Coniston

Table 10.3.1.4.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in Coniston.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Coniston,				n = 301															
Minimum	3900	0.4	2.5	20	0.4	1400	17	3	8	7400	2	1500	88	0.75	16	0.5	10	18	11
10th percentile	7000	0.4	2.5	33	0.4	2900	22	6	49	11000	12	2000	130	0.75	58	0.5	20	22	27
1st quartile	8050	0.4	2.5	42	0.4	3900	26	7	63	13000	17	2300	160	0.75	81	0.5	26	24	34
Median	9300	0.4	7.0	52	0.4	5400	29	12	150	15000	32	2700	180	0.75	200	0.5	33	27	51
3rd quartile	11000	0.4	13	67	0.9	7300	33	20	325	17000	62	3200	210	0.75	450	2.0	39	30	80
95th percentile	14000	1.0	33	90	1.8	11000	44	45	800	24000	150	4100	250	1.50	1200	3.0	47	35	140
Maximum	20000	3.0	47	180	2.7	33000	75	74	1200	33000	400	10000	320	2.90	1900	5.0	86	44	250
Mean	9622	0.5	10	55	0.7	6044	30	16	244	15379	50	2870	183	0.80	334	1.1	33	27	62
Geometric mean	9360	0.4	7.4	52	0.6	5343	29	13	150	14947	34	2764	178	0.78	199	0.9	32	27	53
Sample std. dev.	2326	0.3	9.0	21	0.5	3458	8	13	252	3870	51	907	41	0.21	358	1.0	10	4	38
CV (std. dev./mean)	63%	88%	38%	72%	57%	27%	82%	103	25%	101%	32%	22%	26%	107%	84%	29%	16%	61%	
Lower CI of the mean	9357	0.5	9.3	53	0.6	5651	29	15	216	14939	45	2767	178	0.77	294	1.0	32	27	58
Upper CI of the mean	9886	0.5	11	58	0.7	6437	31	18	273	15819	56	2973	187	0.82	375	1.2	34	28	66
Kurtosis	1.5	29.9	3.0	5.4	2.7	17.1	7.3	2.7	2.6	2.5	9.8	19.0	0.5	39.3	3.0	3.3	3.8	0.7	3.1
Skewness	1.0	4.9	1.8	1.7	1.8	3.0	2.0	1.7	1.7	1.3	2.6	3.2	0.6	5.6	1.8	1.8	0.8	0.5	1.6
5 to 10 cm Urban Soil in Coniston,				n = 297															
Minimum	3900	0.4	2.5	20	0.4	1500	16	3	8	6500	2	1400	84	0.75	14	0.5	10	17	10
10th percentile	6960	0.4	2.5	31	0.4	2500	21	5	40	11000	9	1800	130	0.75	50	0.5	19	22	21
1st quartile	8100	0.4	2.5	37	0.4	3200	24	7	60	13000	13	2000	140	0.75	77	0.5	24	24	27
Median	9500	0.4	8.0	46	0.4	4000	27	10	120	14000	23	2300	170	0.75	170	0.5	32	27	39
3rd quartile	11000	0.4	15	64	0.4	5500	31	18	330	17000	49	2900	200	0.75	430	1.0	38	30	64
95th percentile	15000	1.2	29	96	0.9	7825	39	30	643	20250	133	3900	260	0.75	900	3.0	49	36	110
Maximum	21000	5.3	53	200	1.2	37000	57	46	920	23000	270	8100	310	2.10	1200	4.0	86	44	260
Mean	9777	0.5	11	53	0.5	4728	28	13	215	14827	41	2565	176	0.78	287	1.0	32	28	49
Geometric mean	9486	0.5	7.5	49	0.4	4191	27	11	138	14487	26	2463	171	0.77	181	0.8	30	27	42
Sample std. dev.	2451	0.4	9.2	24	0.2	3185	6	8	200	3131	44	822	44	0.17	270	0.8	10	5	32
CV (std. dev./mean)	25%	80%	86%	45%	40%	67%	23%	64%	93%	21%	108	32%	25%	22%	94%	78%	33%	17%	65%
Lower CI of the mean	9496	0.5	10	50	0.4	4364	27	12	192	14469	36	2471	171	0.76	256	0.9	30	27	46
Upper CI of the mean	10057	0.6	12	56	0.5	5093	29	14	238	15185	46	2659	181	0.80	318	1.1	33	28	53
Kurtosis	1.7	59.4	2.3	6.5	5.6	48.1	2.9	1.5	1.0	0.0	5.9	10.2	0.1	26.0	1.1	2.0	2.7	0.4	8.3
Skewness	0.9	6.5	1.5	2.0	2.6	5.6	1.2	1.4	1.3	0.2	2.2	2.4	0.7	5.1	1.3	1.6	0.8	0.5	2.2
10 to 20 cm Urban Soil in Coniston,				n = 290															
Minimum	4900	0.4	2.5	19	0.4	1400	16	4	17	8500	4	1200	79	0.75	22	0.5	10	17	10
10th percentile	6700	0.4	3	31	0.4	2400	20	6	41	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7700	0	3	38	0	2800	23	7	77	12000	13	2000	140	1	96	1	24	24	26
Median	9150	0.4	8.0	49	0.4	3600	26	10	150	14000	28	2300	170	0.75	190	0.5	31	27	38
3rd quartile	11000	0.4	14	68	0.4	4900	31	16	330	16000	55	2900	200	0.75	390	1.0	39	30	58
95th percentile	15000	1.0	23	110	0.4	7855	39	22	506	20000	146	4200	276	0.75	651	3.0	50	37	120
Maximum	19000	2.7	55	200	1.0	30000	45	43	1100	28000	280	5300	360	1.60	1400	9.0	78	42	210
Mean	9557	0.5	10	57	0.4	4295	27	12	212	14606	43	2524	176	0.77	266	1.0	31	27	48
Geometric mean	9239	0.5	7.4	51	0.4	3795	26	11	148	14253	28	2416	170	0.77	185	0.8	29	27	40
Sample std. dev.	2597	0.3	7.5	29	0.1	3016	6	7	177	3352	45	784	48	0.13	223	0.9	10	5	34
CV (std. dev./mean)	27%	65%	76%	51%	23%	70%	22%	54%	83%	23%	103%	31%	27%	17%	84%	93%	33%	17%	71%
Lower CI of the mean	9257	0.5	9.0	54	0.4	3946	26	11	192	14217	38	2434	171	0.76	240	0.9	30	27	44
Upper CI of the mean	9858	0.5	11	60	0.4	4644	28	13	233	14994	49	2615	182	0.79	292	1.1	32	28	52
Kurtosis	1.5	21.1	4.8	4.8	18.6	35.6	0.3	3.6	3.4	1.6	4.8	0.8	0.6	28.0	3.7	22.3	0.7	0.5	4.8
Skewness	1.1	4.3	1.6	1.9	4.4	5.1	0.8	1.6	1.5	1	2.1	1.0	0.8	5.5	1.6	3.6	0.5	0.5	2.0

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.4.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 287																		
Minimum	5400	0.4	2.5	20	0.4	1400	18	3	14	8500	6	1500	88	0.75	25	0.5	10	18	17
10th percentile	7060	0.4	2.5	35	0.4	2900	22	6	50	1200	13	2000	130	0.75	60	0.5	20	22	28
1st quartile	8150	0.4	2.5	42	0.4	3900	26	7	65	1300	18	2300	160	0.75	82	0.5	26	25	35
Median	9400	0.4	7.0	53	0.4	5300	29	11	150	1500	32	2700	180	0.75	200	0.5	33	27	53
3rd quartile	1100	0.4	13	67	0.9	7300	34	20	320	1700	68	3200	210	0.75	450	2.0	39	30	83
95th percentile	1400	1.0	33	90	1.8	1100	44	45	807	2470	150	4070	250	1.50	1200	3.0	47	35	140
Maximum	2000	3.0	47	180	2.7	3300	75	74	1200	3300	400	6900	320	2.90	1900	5.0	86	44	250
Mean	9709	0.5	10	56	0.7	5999	31	16	246	1548	52	2833	183	0.80	336	1.2	33	27	64
Geometric mean	9457	0.5	7.5	53	0.6	5323	30	13	154	1505	36	2748	179	0.78	203	0.9	32	27	55
Sample std. dev.	2309	0.3	9.1	21	0.5	3400	8	13	253	3891	52	738	40	0.21	360	1.0	10	4	38
CV (std. dev./mean)	24%	64%	88%	37%	72%	57%	27%	82%	103	25%	99%	26%	22%	27%	107	84%	29%	16%	60%
Lower CI of the mean	9440	0.5	9.4	54	0.6	5603	30	15	217	1503	46	2747	178	0.77	294	1.0	32	27	59
Upper CI of the mean	9977	0.5	11	59	0.7	6394	32	18	275	1593	58	2919	187	0.82	378	1.3	34	28	68
Kurtosis	1.5	28.4	2.9	5.6	2.5	19.1	7.2	2.8	2.6	2.4	9.5	4.3	0.4	37.3	3.1	3.1	3.8	0.7	3.0
Skewness	1.0	4.8	1.7	1.7	1.8	3.2	2	1.8	1.7	1.3	2.6	1.4	0.5	5.4	1.8	1.7	0.8	0.5	1.5
Parks 0 to 5 cm	n = 14																		
Minimum	3900	0.4	2.5	20	0.4	2000	17	4	8	7400	2	1600	110	0.75	16	0.5	18	18	11
10th percentile	5800	0.4	2.5	28	0.4	2490	20	5	14	1100	3	1960	119	0.75	23	0.5	22	22	15
1st quartile	6900	0.4	2.5	32	0.4	3000	23	6	26	1100	6	2200	140	0.75	40	0.5	26	24	16
Median	7650	0.4	6.5	37	0.4	6300	26	12	99	1350	11	2900	175	0.75	195	0.5	32	25	30
3rd quartile	9300	0.4	13	46	0.4	9400	28	24	450	1500	20	3400	200	0.75	610	1.0	35	27	41
95th percentile	1100	0.4	17	60	1.1	1540	35	40	614	1735	41	9220	297	0.75	888	1.4	45	30	52
Maximum	1100	0.4	19	81	1.3	1800	36	43	620	1800	42	1000	310	0.75	940	2.0	45	31	58
Mean	7836	0.4	7.9	40	0.5	6979	26	16	211	1324	16	3636	184	0.75	300	0.7	32	25	30
Geometric mean	7583	0.4	5.9	38	0.5	5761	25	12	93	1296	11	3122	174	0.75	141	0.6	31	25	26
Sample std. dev.	1912	0.0	5.6	14	0.3	4386	5	12	221	2612	12	2433	62	0.00	313	0.4	8	3	14
CV (std. dev./mean)	25%	0%	74%	36%	54%	65%	20%	83%	109	20%	84%	69%	35%	0%	108	60%	26%	13%	50%
Lower CI of the mean	6690	0.4	4.5	31	0.4	4351	23	8	79	1167	8	2178	146	0.75	112	0.5	27	23	21
Upper CI of the mean	8981	0.4	11	48	0.7	9607	29	23	343	1480	23	5094	221	0.75	487	1	37	27	39
Kurtosis	0.1		-1.1	5.4	3.3	1.6	0.2	0.3	-0.8	0.6	0.4	3.4	-0.2		-0.3	6.5	-0.5	0.9	-1.1
Skewness	0.0		0.6	1.9	2.0	1.3	0.4	1.2	0.9	-0.3	1.1	2.1	0.9		1.0	2.4	0.1	-0.1	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.4.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 285															
Minimum	5300	0.4	2.5	21	0.4	1500	16	3	17	6500	5	1400	84	0.8	26	0.5	10	18	16
10th percentile	7120	0.4	2.5	31	0.4	2500	21	5	42	11000	10	1800	130	0.8	51	0.5	19	22	22
1st quartile	8100	0.4	2.5	38	0.4	3200	24	7	62	13000	14	2000	140	0.8	79	0.5	24	24	29
Median	9500	0.4	8.0	47	0.4	4000	27	10	130	15000	25	2300	170	0.8	170	0.5	32	27	40
3rd quartile	11000	0.4	15	65	0.4	5500	31	18	330	17000	51	2800	200	0.8	440	1.5	38	30	64
95th percentile	14800	1.2	29	95	0.9	8300	39	31	640	20000	130	3900	260	0.8	900	3.0	49	36	110
Maximum	21000	5.3	53	200	1.2	37000	57	46	920	23000	270	6500	310	2.1	1200	4.0	86	44	260
Mean	9849	0.5	11	54	0.5	4700	28	13	221	14974	42	2534	177	0.8	293	1.0	32	28	51
Geometric mean	9574	0.5	7.7	49	0.4	4169	27	11	143	14653	28	2445	172	0.8	187	0.8	30	27	43
Sample std. dev.	2422	0.4	9.3	24	0.2	3188	6	8	202	3068	44	722	44	0.2	274	0.8	10	5	32
CV (std. dev./mean)	25%	81%	85%	45%	38%	68%	23%	64%	92%	21%	105	29%	25%	22%	94%	78%	33%	17%	64%
Lower CI of the mean	9566	0.5	10	51	0.4	4327	27	12	197	14616	37	2450	172	0.8	261	0.9	30	27	47
Upper CI of the mean	10132	0.6	12	56	0.5	5072	29	14	245	15332	48	2619	182	0.8	325	1.1	33	28	54
Kurtosis	1.8	57.0	2.2	6.4	5.2	50.1	3.1	1.3	0.9	0.0	5.7	3.4	0.1	24.7	1.0	1.8	2.8	0.4	8.3
Skewness	1.0	6.3	1.4	1.9	2.6	5.8	1.3	1.3	1.2	0.2	2.2	1.4	0.6	5.0	1.3	1.5	0.8	0.5	2.2
Parks 5 to 10 cm		n = 12																	
Minimum	3900	0.4	2.5	20	0.4	2600	17	4	8	7600	2	2000	110	0.8	14	0.5	15	17	10
10th percentile	4330	0.4	2.5	24	0.4	2820	18	4	11	7980	2	2010	111	0.8	18	0.5	19	18	11
1st quartile	6500	0.4	2.5	29	0.4	3150	22	5	25	9800	5	2100	125	0.8	35	0.5	25	23	15
Median	8100	0.4	2.5	35	0.4	4500	25	8	69	10500	6	2500	140	0.8	146	0.5	30	25	16
3rd quartile	10250	0.4	7.0	41	0.4	6200	27	10	120	14000	9	3250	150	0.8	215	1.0	36	29	26
95th percentile	11450	0.4	10	53	0.4	1135	37	14	180	15000	9	7440	260	0.8	277	1.0	46	32	28
Maximum	12000	0.4	12	54	0.4	13000	38	15	180	15000	10	8100	260	0.8	310	1.0	46	32	29
Mean	8067	0.4	4.9	36	0.4	5408	26	8	79	11333	6	3300	154	0.8	139	0.7	31	25	19
Geometric mean	7631	0.4	4.0	34	0.4	4749	25	7	53	11050	5	2920	148	0.8	90	0.6	29	25	18
Sample std. dev.	2495	0.0	3.2	10	0.0	3045	6	3	58	2524	3	1941	49	0.0	100	0	9	5	7
CV (std. dev./mean)	32%	0%	68%	29%	0%	59%	25%	43%	76%	23%	45%	61%	33%	0%	75%	37%	31%	19%	36%
Lower CI of the mean	6411	0.4	2.8	29	0.4	3388	21	6	41	9659	4	2012	121	0.8	72	0.5	25	22	15
Upper CI of the mean	9722	0.4	7.0	43	0.4	7429	30	10	118	13008	8	4588	187	0.8	205	0.8	37	28	24
Kurtosis	-0.8		0.2	-0.5		2.1	0.5	-0.2	-0.8	-1.3	-1.2	2.6	1.8		-1.6	-1.7	-0.4	-1	-2
Skewness	-0.2		1.1	0.3		1.6	0.9	0.7	0.6	0.2	-0.1	1.9	1.7		0.1	0.8	0.2	-0.2	0.2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.4.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 282																	
Minimum	4900	0.4	2.5	19	0.4	1400	16	4	17	8500	4	1200	79	0.8	22	0.5	10	17	10
10th percentile	6700	0.4	2.5	31	0.4	2400	20	6	42	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7600	0.4	2.5	37	0.4	2800	23	8	78	12000	14	2000	140	0.8	97	0.5	24	24	26
Median	9200	0.4	8.0	50	0.4	3600	26	10	155	14000	29	2300	170	0.8	190	0.5	30	27	38
3rd quartile	11000	0.4	14	69	0.4	4900	31	16	330	16000	60	2900	200	0.8	390	1.0	39	30	59
95th percentile	15000	1.0	23	110	0.4	7895	39	22	510	20000	150	4200	280	0.8	659	3.0	50	37	120
Maximum	19000	2.7	55	200	1.0	30000	45	43	1100	28000	280	5300	360	1.6	1400	9.0	78	42	210
Mean	9569	0.5	10	57	0.4	4297	27	12	215	14651	44	2517	176	0.8	268	1.0	31	27	49
Geometric mean	9242	0.5	7.6	52	0.4	3786	26	11	150	14293	29	2407	170	0.8	188	0.8	29	27	40
Sample std. dev.	2632	0.3	7.5	29	0.1	3055	6	7	178	3377	45	790	48	0.1	224	0.9	11	5	34
CV (std. dev./mean)	28%	66%	75%	51%	24%	71%	23%	54%	83%	23%	101	31%	27%	17%	84%	93%	34%	17%	70%
Lower CI of the mean	9260	0.5	9.2	54	0.4	3938	26	11	194	14254	39	2424	171	0.8	242	0.9	30	27	45
Upper CI of the mean	9878	0.5	11	61	0.4	4656	28	13	236	15048	50	2610	182	0.8	295	1.1	32	28	53
Kurtosis	1.4	20.4	4.9	4.6	18.0	34.7	0.3	3.6	3.4	1.6	4.7	0.8	0.6	27.1	3.7	21.7	0.6	0.4	4.7
Skewness	1.1	4.3	1.6	1.9	4.4	5.0	0.8	1.6	1.5	1.0	2.0	1.1	0.8	5.4	1.6	3.6	0.5	0.5	2.0
Parks 10 to 20 cm		n = 8																	
Minimum	8400	0.4	2.5	38	0.4	3100	26	5	27	11000	5	2100	130	0.8	35	0.5	28	26	14
10th percentile	8750	0.4	2.5	39	0.4	3310	26	5	28	11000	5	2170	137	0.8	36	0.5	29	26	15
1st quartile	8900	0.4	2.5	41	0.4	3500	27	6	40	11500	5	2400	140	0.8	54	0.5	31	26	17
Median	9050	0.4	2.5	44	0.4	4100	27	6	75	13000	6	2800	150	0.8	100	0.5	35	27	21
3rd quartile	9450	0.4	6.3	46	0.4	4900	29	12	144	14500	9	3200	190	0.8	285	1.0	36	28	27
95th percentile	9830	0.4	17	51	0.4	5455	31	17	285	15000	11	3330	233	0.8	519	1.0	37	29	28
Maximum	9900	0.4	20	53	0.4	5700	32	18	330	15000	12	3400	240	0.8	550	1.0	37	30	28
Mean	9138	0.4	5.6	44	0.4	4225	28	9	109	13000	7	2788	166	0.8	183	0.7	33	27	21
Geometric mean	9127	0.4	3.9	44	0.4	4145	28	8	77	12903	7	2749	162	0.8	112	0.6	33	27	20
Sample std. dev.	444	0.0	6.0	4	0.0	829	2	5	98	1581	3	454	38	0.0	189	0.2	3	1	5
CV (std. dev./mean)	5%	0%	113%	11%	0%	21%	8%	59%	96%	13%	39%	17%	24%	0%	111%	38%	9%	5%	26%
Lower CI of the mean	8740	0.4	0.3	40	0.4	3484	26	4	22	11586	5	2381	132	0.8	14	0.5	31	26	17
Upper CI of the mean	9535	0.4	11.0	48	0.4	4966	30	13	197	14414	9	3194	200	0.8	352	0.9	36	28	26
Kurtosis	0.1		4.2	1.4		-0.8	1.0	0.1	2.4	-2.0	-0.1	-1.5	0.2		0.3	-2.2	-0.5	1.1	-2.1
Skewness	0.3		2.1	0.8		0.4	1.3	1.4	1.7	0.0	1.1	-0.3	1.3		1.4	0.6	-0.8	1.1	0.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.5 Falconbridge

Table 10.3.1.5.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in Falconbridge.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Falconbridge,			n = 220																
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7090	0.4	9	31	0.4	3690	27	11	72	12900	14	2100	140	0.75	120	0.5	21	24	29
1st quartile	7900	0.4	29	39	1.1	5500	33	28	390	16000	35	2400	160	0.75	445	1.0	27	26	50
Median	9000	0.4	49	50	2.1	7300	40	49	780	21000	66	2800	180	2.2	820	2	33	30	66
3rd quartile	10000	0.4	100	56	3.0	9550	52	74	1200	27000	120	3250	210	3.7	1300	3	38	34	99
95th percentile	12000	1.2	181	69	4.3	13000	73	111	1900	38000	200	4105	240	7.6	2105	6	45	39	150
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	6900	310	14.0	3700	12	51	56	240
Mean	9080	0.5	69	48	2.2	7885	44	54	828	21886	83	2902	182	2.8	915	2.6	32	30	76
Geometric mean	8927	0.5	45	47	1.7	7097	41	42	550	20520	58	2817	179	2.0	645	2	31	29	66
Sample std. dev.	1677	0.4	58	13	1.3	4294	15	34	597	8075	66	753	35	2.27	650	1.8	8	5	41
CV (std. dev./mean)	19%	83%	84%	27%	59%	55%	34%	64%	72%	37%	80%	26%	20%	82%	71%	71%	24%	18%	54%
Lower CI of the mean	8857	0.5	62	47	2.0	7314	42	49	749	20811	74	2802	178	2.45	829	2.3	31	29	71
Upper CI of the mean	9303	0.6	77	50	2.3	8457	46	58	908	22961	92	3002	187	3.06	1002	2.8	34	31	81
Kurtosis	1.7	28.1	1.7	-0.2	0.0	25.1	0.5	0.8	0.8	0.8	2.9	4.6	0.6	3.5	1.3	4.3	-0.3	3.2	2.4
Skewness	0.5	4.9	1.3	0.1	0.4	3.9	0.9	0.8	0.8	0.9	1.5	1.6	0.4	1.7	1	1.6	-0.3	0.8	1.3
5 to 10 cm Urban Soil in Falconbridge,			n = 217																
Minimum	4700	0.4	2.5	22	0.4	2500	17	5	10	10000	4	1500	110	0.75	22	0.5	13	19	14
10th percentile	7800	0.4	18	31	0.4	3200	25	11	132	12600	15	1900	130	0.75	136	0.5	22	25	26
1st quartile	8800	0.4	34	38	0.4	4400	29	22	310	15000	26	2100	150	0.75	430	1.0	26	27	39
Median	9800	0.4	76	48	1.1	6500	36	37	580	20000	55	2400	180	0.75	740	3.0	31	31	57
3rd quartile	11000	0.4	140	58	1.7	9100	46	57	1000	26500	120	2700	230	0.75	1100	4.0	38	35	87
95th percentile	13000	1.2	323	74	3.4	13000	75	113	2025	40000	220	3300	300	2.23	2225	6.0	44	41	140
Maximum	23000	8.1	570	89	4.8	33000	140	150	3000	100000	340	13700	480	8.80	3100	11.0	50	110	210
Mean	10027	0.6	109	48	1.3	7123	41	43	754	22857	77	2627	196	1.02	849	2.8	32	33	65
Geometric mean	9807	0.5	67	46	1.0	6375	38	33	500	20610	51	2478	188	0.91	598	2.1	30	32	56
Sample std. dev.	2270	0.8	105	14	1.0	3609	20	30	605	12496	66	1344	61	0.74	626	1.9	8	11	36
CV (std. dev./mean)	23%	125%	96%	29%	73%	51%	49%	70%	80%	55%	86%	51%	31%	73%	74%	69%	25%	33%	56%
Lower CI of the mean	9723	0.5	95	46	1.2	6639	39	39	673	21181	68	2447	188	0.92	765	2.5	31	31	60
Upper CI of the mean	10332	0.7	123	50	1.4	7607	44	47	835	24533	86	2807	204	1.12	933	3	33	34	70
Kurtosis	8.9	57.7	3.2	-0.3	1.4	11.3	6.3	1.4	1.7	12.7	1.2	39.9	3.1	56.7	1.7	1.4	-0.6	21.2	1.5
Skewness	2.1	7.1	1.7	0.2	1.2	2.2	2.3	1.2	1.3	2.9	1.3	5.8	1.5	6.1	1.3	1.1	-0.1	3.9	1.1
10 to 20 cm Urban Soil in Falconbridge,			n = 217																
Minimum	5200	0.4	2.5	24	0.4	2000	17	5	13	10000	4	1400	97	0.75	25	0.5	12	17	14
10th percentile	7800	0.4	17	32	0.4	3100	23	9	93	12000	11	1800	130	0.75	140	0.5	21	25	22
1st quartile	8700	0.4	29	39	0.4	3900	27	13	160	14000	18	2100	150	0.75	240	1.0	25	27	31
Median	10000	0.4	57	47	0.4	5100	32	21	310	16000	32	2300	170	0.75	410	2.0	31	31	43
3rd quartile	11000	0.4	120	59	1.0	6700	40	31	530	21000	64	2600	220	0.75	605	3.0	36	35	61
95th percentile	14000	1.0	242	78	1.8	9760	76	56	1000	37000	142	4800	340	1.70	1200	6.0	43	56	93
Maximum	25000	1.4	620	110	3.4	30000	160	110	2000	110000	230	15500	540	6.00	2500	8.0	55	130	140
Mean	10370	0.5	88	49	0.8	5737	37	25	398	19825	48	2694	193	0.88	488	2.1	31	33	49
Geometric mean	10063	0.4	56	47	0.6	5199	34	21	283	17697	33	2435	183	0.81	370	1.6	30	32	43
Sample std. dev.	2836	0.2	89	15	0.5	3026	21	18	328	13817	43	1871	71	0.58	379	1.7	8	14	24
CV (std. dev./mean)	27%	43%	101%	30%	71%	53%	56%	71%	83%	70%	89%	70%	37%	66%	78%	79%	26%	41%	49%
Lower CI of the mean	9990	0.4	77	47	0.7	5331	35	23	354	17972	42	2444	184	0.80	437	1.9	30	32	45
Upper CI of the mean	10750	0.5	100	51	0.8	6143	40	27	442	21678	54	2945	203	0.96	539	2.3	32	35	52
Kurtosis	8.9	10.9	8.0	1.1	4.7	20.6	14.6	7.5	3.8	23.6	1.7	26.0	4.6	47.7	7.3	2.4	0.2	20.9	0.5
Skewness	2.4	3.4	2.4	0.9	2.0	3.4	3.5	2.3	1.7	4.5	1.5	4.8	1.9	6.4	2.2	1.6	0.1	4.1	0.9

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.5.2: Summary Statistics for All 0-5 cm Urban Soil Samples in Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 199															
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10^{th} percentile	7080	0.4	11	32	0.4	4380	28	11	87	1300	17	2100	140	0.75	140	0.5	21	24	33
1st quartile	7900	0.4	31	41	1.5	5900	33	32	460	16000	42	2400	160	0.75	550	1.0	27	26	56
Median	9000	0.4	52	51	2.2	7500	41	51	810	21000	71	2700	180	2.4	850	2.0	34	29	71
3rd quartile	10000	0.4	110	58	3.0	9600	52	75	1200	27000	130	3200	200	3.9	1300	4.0	39	33	100
95^{th} percentile	12000	1.2	190	71	4.5	13000	73	111	1910	38000	200	4010	240	8.1	2110	6.0	45	38	151
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	5700	290	14	3700	12	51	44	240
Mean	9059	0.5	74	50	2.3	8167	45	56	874	22025	88	2864	182	2.9	956	2.7	33	30	80
Geometric mean	8904	0.5	50	48	1.9	7419	42	44	610	20709	65	2792	178	2.2	705	2.1	31	29	71
Sample std. dev.	1686	0.5	59	13	1.2	4330	15	33	590	7903	67	674	34	2.3	636	1.9	8	5	41
CV (std. dev./mean)	19%	85%	81%	26%	53%	53%	34%	60%	68%	36%	76%	24%	19%	79%	67%	69%	25%	17%	51%
Lower CI of the mean	8823	0.5	65	48	2.1	7561	42	51	791	20917	79	2770	177	2.6	867	2.4	31	29	74
Upper CI of the mean	9296	0.6	82	52	2.5	8774	47	61	956	23132	98	2959	186	3.2	1045	3.0	34	30	86
Kurtosis	1.7	25.9	1.5	0.0	0.2	25.9	0.5	1.0	0.9	0.9	2.7	2.5	0.3	3.1	1.6	4.1	-0.4	0.8	2.5
Skewness	0.5	4.7	1.2	0.0	0.4	4.0	0.8	0.8	0.8	0.9	1.4	1.1	0.2	1.6	1.0	1.5	-0.3	0.1	1.3
Schools and Day Cares 0 to 5 cm				n = 3															
Minimum	6100	0.4	2.5	26	0.4	2500	31	11	46	12000	11	3400	190	0.75	61	0.5	19	26	27
Median	8700	0.4	2.5	43	0.4	6300	31	12	58	13000	20	3400	210	1.5	110	0.5	38	30	35
Maximum	9800	0.4	2.5	46	1.0	7000	35	13	66	16000	21	4200	220	1.8	120	0.5	42	32	36
Mean	8200	0.4	2.5	38	0.6	5267	32	12	57	13667	17	3667	207	1.4	97	0.5	33	29	33
Parks 0 to 5 cm	n = 18																		
Minimum	6500	0.4	2.5	22	0.4	3100	24	8	44	12000	6	1800	130	0.75	68	0.5	22	25	17
10^{th} percentile	8050	0.4	5.0	28	0.4	3400	26	10	54	1200	10	1940	140	0.75	87	0.5	25	26	20
1st quartile	8800	0.4	12	29	0.4	3500	26	15	88	13000	14	2500	150	0.75	120	1.0	27	26	25
Median	9300	0.4	34	36	0.4	3550	37	22	325	20500	22	2850	170	0.75	385	1.5	32	31	31
3rd quartile	9800	0.4	49	43	0.9	7600	39	34	480	27000	33	3400	230	1.60	690	2.0	34	35	47
95^{th} percentile	11450	0.5	73	44	3.1	10450	61	93	1375	41600	73	5455	268	2.29	1905	3.2	35	52	82
Maximum	14000	1.2	84	45	4.2	13000	73	130	1800	45000	110	6900	310	2.80	2500	4.0	35	56	96
Mean	9456	0.4	34	35	1.0	5206	38	34	456	21722	31	3189	187	1.17	601	1.7	31	33	39
Geometric mean	9342	0.4	23	35	0.6	4635	36	24	255	19857	23	2978	181	1.03	335	1.3	30	32	35
Sample std. dev.	1510	0.2	23	7	1.1	2871	13	32	490	9717	26	1300	48	0.64	675	1.0	4	8	22
CV (std. dev./mean)	16%	42%	70%	20%	116	57%	34%	97%	110%	46%	86%	42%	27%	56%	116%	63%	14%	26%	57%
Lower CI of the mean	8683	0.4	22	32	0.4	3737	31	17	206	16750	17	2523	162	0.84	256	1.1	29	29	28
Upper CI of the mean	10228	0.5	46	39	1.6	6675	44	50	707	26695	44	3854	211	1.49	947	2.2	33	37	50
Kurtosis	4.0	18.0	-0.4	-1.2	2.9	1.5	2.4	3.7	1.9	0.5	4.1	2.5	0.6	0.6	2.2	-0.4	0.0	2.1	1.2
Skewness	1.2	4.2	0.4	-0.2	1.9	1.6	1.5	2.0	1.6	1.1	2.0	1.6	1.2	1.3	1.7	0.7	-1.0	1.6	1.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.5.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 199															
Minimum	4700	0.4	2.5	22	0.4	2500	17	5	10	10000	4	1500	110	0.8	22	0.5	13	19	14
10th percentile	7800	0.4	21	31	0.4	3400	25	12	148	12800	16	1900	130	0.8	176	0.5	21	25	28
1st quartile	8800	0.4	37	38	0.4	4500	29	23	320	15000	27	2100	150	0.8	450	1.0	26	27	41
Median	9800	0.4	77	49	1.2	6600	36	38	600	20000	57	2400	180	0.8	780	3.0	31	31	59
3rd quartile	11000	0.4	160	58	1.8	9450	46	61	1100	26000	120	2700	220	0.8	1100	4.0	38	35	89
95th percentile	13000	1.2	321	74	3.4	13000	75	111	2010	40000	220	3300	300	2.2	2210	6.0	44	41	140
Maximum	15000	8.1	570	89	4.8	33000	120	150	3000	49000	340	3900	380	8.8	3100	11	50	56	210
Mean	9828	0.6	113	49	1.4	7326	40	44	785	21719	81	2430	192	1.0	885	2.8	32	31	68
Geometric mean	9685	0.5	70	47	1.1	6577	37	34	530	20154	55	2390	185	0.9	635	2.2	30	31	59
Sample std. dev.	1648	0.8	108	14	1.0	3654	17	30	617	8878	68	447	52	0.8	635	1.9	8	6	36
CV (std. dev./mean)	17%	136%	95%	28%	70%	50%	42%	68%	79%	41%	84%	18%	27%	74%	72%	67%	26%	19%	54%
Lower CI of the mean	9597	0.5	98	47	1.2	6814	38	40	698	20474	72	2367	185	0.9	796	2.5	30	31	62
Upper CI of the mean	10059	0.7	129	51	1.5	7838	42	49	871	22963	91	2493	199	1.1	974	3.1	33	32	73
Kurtosis	0.5	53.8	2.8	-0.4	1.2	11.3	5.1	1.1	1.4	0.8	0.9	0.8	0.7	52.4	1.5	1.7	-0.6	1.6	1.4
Skewness	0.1	6.8	1.6	0.2	1.2	2.2	2.0	1.2	1.3	1.1	1.2	0.6	1.0	5.9	1.2	1.1	-0.2	0.9	1.1
Parks 5 to 10 cm		n = 18																	
Minimum	5900	0.4	6	22	0.4	2700	22	6	32	11000	5	1800	130	0.8	43	0.5	22	23	14
10th percentile	7540	0.4	9	25	0.4	2970	24	7	46	12400	8	1870	130	0.8	54	0.5	23	24	17
1st quartile	8800	0.4	23	29	0.4	3100	27	13	160	15000	17	2200	140	0.8	190	0.5	25	26	22
Median	9700	0.4	71	43	0.4	4050	32	25	500	20000	35	2550	195	0.8	510	2.0	31	32	31
3rd quartile	16000	0.4	100	48	0.4	6300	95	30	580	56000	53	7600	330	0.8	680	4.0	36	74	53
95th percentile	22150	1.1	112	58	1.2	9000	140	48	891	99150	64	13105	463	0.8	913	7.2	45	100	78
Maximum	23000	1.5	120	62	1.4	9000	140	58	950	10000	137	0.8	1100	8.0	46	110	88		
Mean	12228	0.5	61	40	0.5	4878	57	24	411	35444	35	4806	239	0.8	451	2.6	31	47	40
Geometric mean	11259	0.5	41	39	0.5	4514	45	20	268	26396	27	3684	216	0.8	306	1.5	31	41	34
Sample std. dev.	5178	0.3	41	12	0.3	1988	40	14	284	28956	20	3794	112	0.0	308	2.4	7	27	22
CV (std. dev./mean)	44%	58%	69%	29%	60%	42%	72%	59%	71%	84%	59%	81%	48%	0%	70%	97%	24%	59%	57%
Lower CI of the mean	9578	0.4	40	35	0.4	3860	36	17	265	20627	25	2864	182	0.8	293	1.3	28	33	28
Upper CI of the mean	14877	0.6	82	46	0.7	5895	77	31	556	50262	45	6747	297	0.8	609	3.8	35	61	51
Kurtosis	-0.5	9.7	-1.8	-0.9	2.8	-0.3	-0.3	0.6	-1.0	0.4	-1.2	0.6	-0.4		-0.8	-0.1	-0.8	-0.1	-0.4
Skewness	0.9	3.1	-0.1	-0.1	2.1	0.9	1.1	0.7	0.2	1.2	0.0	1.3	0.9		0.3	1.0	0.5	1.1	0.9

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.5.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm				n = 199															
Minimum	5200	0.4	2.5	24	0.4	2000	17	5	13	10000	4	1400	97	0.8	25	0.5	12	17	15
10th percentile	7800	0.4	17	32	0.4	3200	22	9	94	12000	11	1700	130	0.8	140	0.5	21	24	22
1st quartile	8700	0.4	28	39	0.4	3900	27	13	160	13000	18	2000	150	0.8	240	1.0	25	27	31
Median	9900	0.4	55	47	0.4	5300	32	20	310	16000	32	2200	170	0.8	410	2.0	31	30	43
3rd quartile	11000	0.4	130	60	1.1	6700	39	31	530	20000	71	2500	210	0.8	620	3.0	36	34	61
95th percentile	13000	1.0	252	78	1.9	10100	52	56	1010	28100	150	3030	301	1.7	1200	5.0	43	41	95
Maximum	20000	1.4	620	110	3.4	30000	110	110	2000	38000	230	7500	400	6.0	2500	8.0	55	73	140
Mean	9963	0.5	90	49	0.8	5819	34	25	401	17276	50	2329	185	0.9	493	2.1	31	31	49
Geometric mean	9782	0.4	56	47	0.7	5264	32	21	282	16562	34	2271	177	0.8	373	1.6	29	30	43
Sample std. dev.	1935	0.2	92	15	0.6	3106	11	18	338	5457	44	598	57	0.6	389	1.6	8	6	24
CV (std. dev./mean)	19%	45%	102%	31%	70%	54%	34%	72%	84%	32%	89%	26%	31%	68%	79%	77%	27%	20%	49%
Lower CI of the mean	9692	0.4	77	47	0.7	5383	32	23	354	16512	44	2245	177	0.8	438	1.8	30	30	45
Upper CI of the mean	10234	0.5	103	51	0.9	6254	35	28	449	18041	56	2412	193	1.0	547	2.3	32	32	52
Kurtosis	3.2	9.6	7.3	1.1	4.2	19.9	11.6	7.1	3.5	2.6	1.3	28.3	1.4	46.0	7.0	2.7	0.2	11.3	0.5
Skewness	0.9	3.2	2.3	0.9	1.9	3.4	2.5	2.3	1.7	1.5	1.4	3.8	1.3	6.3	2.2	1.6	0.1	2.1	1.0
Parks 10 to 20 cm		n = 18																	
Minimum	6400	0.4	5	29	0	2500	22	6	55	13000	8	1800	140	0.8	42	0.5	16	24	14
10th percentile	8550	0.4	18	31	0	2740	25	11	105	13000	12	2070	157	0.8	124	0.5	23	28	20
1st quartile	10000	0.4	32	36	0	3300	29	16	220	15000	18	2300	170	0.8	260	0.5	27	30	25
Median	14000	0.4	70	47	0	4700	72	23	345	36500	34	6500	265	0.8	450	2.0	31	58	43
3rd quartile	19000	0.4	100	54	0	6400	100	27	500	61000	43	9100	350	0.8	550	3.0	35	79	61
95th percentile	25000	0.4	122	61	0	7730	152	42	716	11000	150	1.0	880	7.2	43	113	85		
Maximum	25000	0.4	130	76	1	7900	160	42	750	11000	155	2.2	990	8.0	46	130	86		
Mean	14872	0.4	69	46	0	4833	76	23	356	48000	32	6739	287	0.8	432	2.7	31	61	47
Geometric mean	13765	0.4	53	45	0	4529	62	20	289	36837	28	5249	261	0.8	339	1.8	30	53	41
Sample std. dev.	5783	0.0	37	12	0	1702	46	10	196	33265	13	4516	125	0.3	245	2.4	7	32	23
CV (std. dev./mean)	40%	0%	55%	26%	28%	36%	62%	46%	57%	71%	44%	69%	45%	41%	58%	91%	25%	54%	50%
Lower CI of the mean	11913	0.4	50	40	0	3963	53	18	256	30978	25	4428	223	0.7	307	1.5	27	45	35
Upper CI of the mean	17831	0.4	87	52	0	5704	99	28	456	65022	39	9050	351	1.0	558	3.9	35	78	58
Kurtosis	-0.9		-1.0	0.7	18.0	-1.1	-1.0	-0.3	-0.4	-0.7	-1.2	-0.6	-0.7	18.0	0.2	0.1	-0.1	-0.6	-0.9
Skewness	0.5		-0.2	0.5	4.2	0.3	0.5	0.4	0.3	0.8	-0.4	0.7	0.7	4.2	0.4	1.2	0.1	0.7	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.6 Copper Cliff

Table 10.3.1.6.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in Copper Cliff.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Copper Cliff, n = 290																			
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	11000	10	2000	98	0.75	71	0.5	16	16	23
10th percentile	8590	0.4	6	45	0.4	4300	29	12	360	14000	25	2600	160	0.75	299	2.0	23	25	38
1st quartile	9500	0.4	9.0	52	0.8	5600	32	17	660	15000	41	3200	180	0.75	500	3.0	32	28	54
Median	11000	0.4	14	67	1.4	7500	38	27	1200	19000	69	3800	210	0.75	840	6.0	39	31	76
3rd quartile	13000	0.4	24	90	2.2	11000	46	43	2000	24000	110	4400	230	1.60	1300	11.0	44	34	120
95th percentile	15000	1.0	45	120	3.4	21550	60	79	3300	33000	220	7910	270	2.40	2455	16.0	52	38	180
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.80	3649	49.0	71	51	250
Mean	11124	0.5	18	73	1.6	9599	40	33	1433	20507	87	4250	207	1.14	1022	7.6	38	31	92
Geometric mean	10924	0.5	14	68	1.2	8046	39	28	1079	19619	67	3943	203	1.01	792	5.5	36	31	80
Sample std. dev.	2129	0.3	13	28	1.0	8046	11	21	1028	6415	69	2038	41	0.64	701	6.1	10	5	49
CV (std. dev./mean)	19%	54%	69%	38%	63%	84%	28%	63%	72%	31%	79%	48%	20%	56%	69%	80%	26%	16%	53%
Lower CI of the mean	10878	0.5	17	70	1.5	8667	39	31	1314	19764	79	4014	203	1.06	941	6.9	37	30	86
Upper CI of the mean	11371	0.5	20	76	1.7	10530	41	36	1552	21250	95	4486	212	1.21	1103	8.3	39	31	97
Kurtosis	0.3	14.6	1.7	1.7	-0.1	41.9	3.6	0.8	1.9	1.1	5.3	13.4	3.8	2.5	0.9	10.0	0.2	1.0	0.2
Skewness	0.5	3.5	1.3	1.2	0.7	5.3	1.4	1.1	1.3	1.1	2.0	3.2	0.7	1.7	1.1	2.3	0.0	-0.1	0.9
5 to 10 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	6900	0.4	2.5	28	0.4	2100	20	5	26	8100	7	1700	84	0.75	40	0.5	11	20	18
10th percentile	9000	0.4	6	43	0.4	3700	27	9	200	14000	13	2500	160	0.75	170	1.0	23	26	32
1st quartile	10000	0.4	11	55	0.4	4400	31	14	440	16000	34	2900	180	0.75	370	2.0	30	29	45
Median	12000	0.4	17	76	0.4	6100	37	21	700	19000	54	3400	210	0.75	610	4.0	37	33	66
3rd quartile	15000	0.8	29	100	1.1	7900	45	31	1100	23000	99	3900	250	0.75	950	5.0	45	37	90
95th percentile	19000	1.6	50	140	2.0	12000	56	46	1700	28800	190	5580	318	1.58	1780	8.0	55	42	148
Maximum	25000	4.9	101	290	3.7	37000	90	70	2800	41000	330	12000	350	2.00	3100	14.0	90	46	210
Mean	12578	0.6	22	84	0.8	6750	39	23	785	19981	73	3583	217	0.81	726	3.9	37	33	72
Geometric mean	12194	0.5	17	76	0.7	6093	37	20	623	19388	53	3443	211	0.79	556	3.1	36	33	64
Sample std. dev.	3194	0.5	17	40	0.6	3606	10	12	481	4974	58	1163	50	0.23	511	2.4	12	5	37
CV (std. dev./mean)	25%	82%	77%	48%	68%	54%	26%	53%	61%	25%	80%	33%	23%	28%	71%	63%	31%	17%	51%
Lower CI of the mean	12206	0.6	20	80	0.8	6330	38	22	729	19402	66	3448	211	0.78	666	3.6	36	32	68
Upper CI of the mean	12951	0.7	24	89	0.9	7170	40	25	841	20561	79	3719	223	0.83	786	4.2	39	34	77
Kurtosis	0.2	19.2	4.0	5.7	3.2	18.4	1.9	0.6	1.1	1.1	2.8	14.3	0.1	13.7	2.0	1.7	1.7	-0.7	0.9
Skewness	0.7	3.6	1.7	1.8	1.5	3.1	0.9	0.9	0.9	0.8	1.5	2.9	0.4	3.9	1.3	1.1	0.6	0.1	1.0
10 to 20 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	5400	0.4	2.5	17	0.4	1700	15	5	25	9400	6	2000	110	0.75	37	0.5	11	19	16
10th percentile	8650	0.4	7	48	0.4	3400	26	9	170	14000	13	2450	150	0.75	195	0.5	24	26	30
1st quartile	10000	0.4	11	60	0.4	4200	30	13	310	16000	29	2800	180	0.75	320	2.0	29	29	41
Median	12000	0.4	19	83	0.4	5500	36	19	560	19000	61	3300	210	0.75	545	3.0	37	33	59
3rd quartile	15000	1.1	32	120	0.9	6900	44	26	820	22000	120	3900	260	0.75	770	4.0	46	37	89
95th percentile	18000	1.9	56	168	1.3	9950	51	37	1300	27000	240	5500	320	1.58	1200	6.0	59	43	150
Maximum	23000	5.8	99	720	1.9	14000	85	46	2000	59000	610	8800	560	2.80	1900	11	95	54	310
Mean	12403	0.8	24	94	0.6	5784	37	20	596	19529	87	3487	222	0.83	588	2.8	38	33	72
Geometric mean	11999	0.6	18	84	0.5	5387	36	18	479	18957	56	3364	215	0.80	480	2.3	36	33	61
Sample std. dev.	3180	0.7	17	55	0.3	2223	9	9	356	5124	84	1018	60	0.31	343	1.7	12	6	45
CV (std. dev./mean)	25%	85%	70%	58%	55%	39%	25%	45%	60%	26%	97%	29%	27%	37%	58%	61%	32%	17%	63%
Lower CI of the mean	12033	0.7	22	87	0.6	5524	36	19	555	18932	77	3369	215	0.79	548	2.6	37	33	66
Upper CI of the mean	12774	0.9	26	100	0.6	6043	38	21	638	20127	97	3606	229	0.87	628	3	40	34	77
Kurtosis	0.0	14.2	1.9	59.6	1.0	1.6	1.6	-0.4	0.7	14.8	7.5	4.7	3.0	17.1	0.9	2.1	1.9	-0.2	6.1
Skewness	0.5	3.0	1.3	5.6	1.4	1.1	0.5	0.6	0.8	2.3	2.2	1.7	1.0	4.1	0.9	1.0	0.8	0.2	2.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.6.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 266																		
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	1100	10	2000	110	0.7	71	0.5	16	17	23
10th percentile	8700	0.4	6.5	45	0.4	4450	29	13	395	14000	30	2600	160	0.8	320	2.0	23	25	44
1st quartile	9600	0.4	10	53	0.9	5700	33	18	690	16000	43	3200	180	0.8	530	4.0	31	28	56
Median	11000	0.4	15	68	1.4	7550	38	29	1200	19000	70	3800	210	0.8	885	6.0	39	31	80
3rd quartile	13000	0.4	23	91	2.2	11000	46	42	2000	23000	120	4400	230	1.6	1300	11	44	34	130
95th percentile	15000	1.0	44	128	3.4	21000	60	75	3075	32750	220	8000	270	2.4	2375	16	52	38	188
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.8	3200	49	71	51	250
Mean	11227	0.5	18	74	1.6	9629	40	33	1440	2051	91	4282	208	1.2	1017	7.8	38	31	95
Geometric mean	11027	0.5	15	70	1.3	8083	39	28	1105	19667	71	3957	204	1.0	803	5.8	36	31	83
Sample std. dev.	2136	0.3	12	28	1.0	8183	11	20	994	6286	70	2108	41	0.6	658	6.1	10	5	48
CV (std. dev./mean)	19%	54%	67%	38%	61%	85%	28%	60%	69%	31%	77%	49%	20%	55%	65%	78%	26%	15%	51%
Lower CI of the mean	10968	0.5	17	71	1.5	8640	39	31	1320	19755	82	4027	203	1.1	937	7.1	36	30	89
Upper CI of the mean	11485	0.5	20	78	1.7	10619	42	36	1560	21275	99	4537	213	1.2	1096	8.5	39	32	101
Kurtosis	0.3	14.8	1.6	1.6	0.1	42.6	3.8	0.9	2.3	1.4	5.1	12.5	4.2	2.2	0.7	10.7	0.2	0.8	0.2
Skewness	0.5	3.6	1.3	1.2	0.7	5.5	1.5	1.1	1.3	1.1	2.0	3.1	0.8	1.6	1.0	2.4	0.0	0.1	0.9
Schools 0 to 5 cm	n = 6																		
Minimum	7400	0.4	6	32	0.4	7000	20	11	250	13000	11	4100	98	0.8	250	1.0	20	16	26
Median	9550	0.4	26	79	2.6	11500	31	50	1800	24500	71	4750	180	0.8	1600	6.0	40	28	44
Maximum	11000	0.4	37	110	3.1	27000	54	80	2900	34000	100	5500	250	1.6	2500	12	60	33	110
Mean	9500	0.4	22	70	2.0	14167	35	47	1587	23167	60	4750	178	0.9	1452	5.7	41	25	60
Geometric mean	9406	0.4	17	64	1.5	12418	33	35	1078	21654	42	4730	169	0.9	1006	3.9	38	24	50
Sample std. dev.	1311	0.0	12	27	1.2	7403	12	28	1021	7946	38	443	53	0.3	924	3.9	14	7	36
CV (std. dev./mean)	15%	0%	60%	43%	63%	57%	39%	66%	70%	38%	69%	10%	33%	39%	70%	75%	39%	29%	66%
Lower CI of the mean	7992	0.4	8	39	0.7	5655	21	14	413	14031	17	4241	117	0.5	389	1.2	24	17	19
Upper CI of the mean	11008	0.4	36	102	3.4	22678	49	79	2760	32302	103	5259	239	1.3	2514	10	57	32	102
Kurtosis	-1.2		-1.8	-1.2	-1.9	-0.6	-1.4	-1.9	-1.8	-1.7	-2.4	0.3	-1.3	6.0	-1.9	-0.8	-1.5	-1.7	-1.9
Skewness	-0.3		-0.5	-0.3	-0.8	0.9	0.6	-0.2	-0.3	-0.2	-0.4	0.3	-0.2	2.4	-0.3	0.3	0.1	-0.6	0.8
Parks 0 to 5 cm	n = 18																		
Minimum	7300	0.4	2.5	34	0.4	2700	25	9	250	1300	13	2400	150	0.75	205	1.0	17	24	24
10th percentile	7960	0.4	6	38	0.4	4140	28	11	314	13000	16	2610	177	0.75	254	1	30	25	29
1st quartile	9100	0.4	7.0	40	0.4	4300	29	12	350	13000	17	3000	180	0.75	300	1.5	35	27	30
Median	9950	0.4	8.0	56	0.4	6050	37	17	610	17500	25	3600	195	0.75	455	2.5	39	30	43
3rd quartile	11000	0.4	14	70	1.4	8900	43	22	990	25000	37	4000	240	0.75	620	6.0	43	34	55
95th percentile	13000	1.0	55	81	3.7	18600	56	94	4260	31350	122	4625	265	2.4	3017	21	47	36	142
Maximum	13000	1.1	63	90	4.0	22000	64	100	4600	39000	130	5900	290	3.4	3649	22	49	36	150
Mean	10150	0.5	16	57	1.2	7622	38	32	1274	19500	45	3611	207	0.98	959	5.4	39	31	56
Geometric mean	9998	0.5	11	55	0.8	6506	37	22	764	18312	32	3520	204	0.87	593	3.2	38	30	47
Sample std. dev.	1756	0.2	17	16	1.2	4938	10	31	1430	7396	42	833	36	0.67	1076	6.4	8	4	38
CV (std. dev./mean)	18%	48%	110%	29%	105	67%	27%	101	115%	39%	95%	24%	18%	71%	116%	121	20%	14%	69%
Lower CI of the mean	9251	0.4	7.1	49	0.6	5095	33	16	542	15716	24	3185	189	0.63	408	2.2	35	28	37
Upper CI of the mean	11049	0.6	24	66	1.8	10149	43	48	2006	23284	67	4037	225	1.32	1509	8.7	42	33	76
Kurtosis	-0.8	2.2	3.5	-1.0	0.6	3.4	0.6	0.3	0.7	0.8	0.0	1.7	-0.1	9.6	1	2.7	2.2	-2	1.4
Skewness	0.2	2.0	2.1	0.3	1.4	1.9	0.9	1.5	1.5	1.2	1.4	0.8	0.7	3.1	1.6	1.9	-1	0	1.6

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.6.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 268															
Minimum	6900	0.4	2.5	28	0.4	2100	20	5	58	8100	8	1700	84	0.8	54	0.5	11	20	21
10th percentile	9100	0.4	7	45	0.4	3700	28	12	287	15000	21	2500	160	0.8	257	2.0	22	26	37
1st quartile	10000	0.4	11	59	0.4	4400	31	15	510	16500	36	2900	180	0.8	400	2.0	30	29	48
Median	12000	0.4	18	79	0.8	6100	38	21	715	19000	57	3400	220	0.8	635	4.0	38	33	69
3rd quartile	15000	0.8	30	100	1.2	7950	46	32	1100	24000	100	3950	250	0.8	962	5.0	46	37	92
95th percentile	19000	1.6	52	140	2.0	13000	56	46	1700	28650	190	5565	317	1.6	1800	8.0	55	42	147
Maximum	25000	4.9	94	290	3.7	37000	90	70	2800	41000	330	12000	350	2.0	3100	14	90	46	210
Mean	12744	0.6	23	87	0.9	6815	39	24	821	20312	77	3591	219	0.8	757	4.1	38	33	75
Geometric mean	12360	0.5	18	79	0.7	6142	38	21	678	19738	58	3452	213	0.8	602	3.4	36	33	67
Sample std. dev.	3203	0.5	16	40	0.6	3675	10	12	472	4926	57	1165	50	0.2	505	2.3	12	5	36
CV (std. dev./mean)	25%	81%	70%	46%	67%	54%	25%	50%	58%	24%	75%	32%	23%	29%	67%	58%	31%	16%	48%
Lower CI of the mean	12358	0.6	21	82	0.8	6372	38	23	764	19719	70	3451	213	0.8	696	3.8	36	33	71
Upper CI of the mean	13130	0.7	25	92	0.9	7258	40	26	878	20906	84	3732	225	0.8	818	4.3	39	34	79
Kurtosis	0.1	21.5	3.1	5.8	2.9	18.0	1.9	0.7	1.2	1.2	2.7	15.2	0.1	12.6	2.1	1.6	1.6	-0.7	0.9
Skewness	0.7	3.8	1.5	1.9	1.5	3.1	0.9	1.0	1.0	0.7	1.5	3.0	0.4	3.7	1.3	1.1	0.6	0.1	1.0
Schools 5 to 10 cm		n = 4																	
Minimum	13000	1.4	65	76	1.1	8800	33	38	940	19000	33	3300	190	0.8	1100	4.0	41	31	51
Median	14000	1.6	72	82	1.5	13050	39	41	1040	19500	38	3350	205	0.8	1350	6.5	43	34	62
Maximum	15000	1.8	94	97	2.4	17000	45	46	1300	24000	55	3700	270	0.8	1900	9.0	44	34	68
Mean	14000	1.6	76	84	1.6	12975	39	41	1080	20500	41	3425	218	0.8	1425	6.5	43	33	61
Parks 5 to 10 cm		n = 18																	
Minimum	8100	0.4	2.5	30	0.4	3300	25	5	26	12000	7	2300	150	0.8	40	0.5	23	25	18
10th percentile	8410	0.4	2.5	32	0.4	3470	26	6	74	12000	9	2440	160	0.8	79	0.5	26	26	23
1st quartile	8600	0.4	2.5	36	0.4	4000	26	8	170	13000	10	2600	160	0.8	130	1.0	31	26	26
Median	9700	0.4	6	44	0.4	4900	31	9	190	15000	11	3100	175	0.8	157	1.0	35	29	28
3rd quartile	11000	0.4	7	59	0.4	7100	34	10	210	17000	11	3700	210	0.8	178	1.0	43	32	32
95th percentile	13150	1.9	92	66	0.9	9575	36	49	919	19150	45	5800	225	0.8	1221	2.8	47	34	56
Maximum	14000	2.6	101	69	1.1	10000	36	50	970	20000	50	5800	250	0.8	1339	13	50	34	56
Mean	10106	0.7	15	46	0.5	5778	30	13	250	15056	14	3461	185	0.8	266	1.6	36	29	31
Geometric mean	9977	0.5	6	44	0.4	5418	30	10	177	14864	12	3303	183	0.8	168	1.0	35	29	30
Sample std. dev.	1670	0.6	29	13	0.2	2134	4	13	251	2437	12	1129	28	0.0	358	2.8	8	3	10
CV (std. dev./mean)	17%	97%	191%	28%	42%	38%	14%	104	17%	84%	34%	15%	0%	138%	184%	22%	11%	33%	
Lower CI of the mean	9251	0.4	0.8	40	0.4	4686	28	6	122	13808	8	2883	171	0.8	83	0.1	32	28	26
Upper CI of the mean	10960	1.0	30	53	0.6	6870	32	20	379	16303	20	4039	199	0.8	449	3.0	40	31	36
Kurtosis	0.0	3.9	6.0	-1.1	7.3	-0.6	-1.8	5.7	5.1	-0.9	6.1	0.2	-0.3		5.9	17.8	-0.8	-1.4	3.1
Skewness	0.9	2.2	2.7	0.6	2.9	0.8	0.0	2.6	2.4	0.5	2.7	1.2	0.8		2.7	4.2	0.1	0.3	1.7

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.6.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm				n = 264															
Minimum	5800	0.4	2.5	30	0.4	1700	19	6	68	11000	6	2000	110	0.8	96	0.5	11	19	16
10th percentile	8900	0.4	8	51	0.4	3500	26	10	223	14000	20	2500	160	0.8	230	1.0	23	26	36
1st quartile	10000	0.4	12	64	0.4	4300	31	14	365	17000	34	2800	180	0.8	360	2.0	30	29	45
Median	12000	0.4	19	87	0.4	5600	37	20	590	19500	68	3300	215	0.8	570	3.0	38	34	63
3rd quartile	15000	1.1	33	120	0.9	7000	44	27	845	22000	120	3900	260	0.8	800	4.0	46	38	91
95th percentile	18000	2.0	56	170	1.3	10850	51	38	1300	27000	240	5500	320	1.5	1200	6.0	59	43	167
Maximum	23000	5.8	99	720	1.9	14000	85	46	2000	59000	610	8800	560	2.8	1900	11.0	95	54	310
Mean	12552	0.8	24	97	0.6	5904	38	21	630	19871	93	3522	225	0.8	619	3.0	39	34	75
Geometric mean	12164	0.6	19	87	0.6	5500	37	19	528	19319	65	3398	217	0.8	527	2.4	37	33	65
Sample std. dev.	3133	0.7	16	55	0.3	2251	9	9	348	5109	85	1026	61	0.3	335	1.7	13	6	45
CV (std. dev./mean)	25%	85%	67%	57%	55%	38%	24%	42%	55%	26%	91%	29%	27%	35%	54%	57%	33%	17%	60%
Lower CI of the mean	12172	0.7	22	90	0.6	5631	37	20	588	19251	83	3397	218	0.8	579	2.8	37	33	70
Upper CI of the mean	12933	0.9	26	104	0.7	6177	39	22	672	20491	104	3647	232	0.9	660	3.2	40	34	81
Kurtosis	0.1	13.3	2.2	60.1	0.7	1.4	1.8	-0.4	0.8	15.6	7.4	4.7	2.9	20.6	1.0	2.3	1.8	-0.1	6.0
Skewness	0.5	2.9	1.3	5.7	1.3	1.0	0.6	0.5	0.8	2.5	2.2	1.8	1.0	4.4	0.9	1.1	0.7	0.2	2.1
Schools 10 to 20 cm		n = 4																	
Minimum	9100	0.4	35	36	0.4	3300	15	11	190	12000	7	2100	130	0.8	250	1.0	27	22	19
Median	9900	1.0	40	50	0.4	4550	25	15	225	13500	11	2450	160	0.8	315	2.0	29	27	27
Maximum	11000	1.1	52	63	1.1	6800	28	23	540	16000	19	2700	170	0.8	710	4.0	33	28	30
Mean	9975	0.9	42	50	0.6	4800	23	16	295	13750	12	2425	155	0.8	398	2.3	30	26	26
Parks 10 to 20 cm		n = 18																	
Minimum	5400	0.4	2.5	17	0.4	2600	20	5	25	9400	6	2000	140	0.8	37	0.5	23	21	17
10th percentile	7480	0.4	2.5	33	0.4	2980	23	7	51	12000	7	2200	150	0.8	45	0.5	26	25	21
1st quartile	8100	0.4	2.5	40	0.4	3400	25	7	100	13000	8	2500	170	0.8	86	0.5	29	26	25
Median	10000	0.4	7	54	0.4	4100	32	9	135	15500	10	3150	195	0.8	141	0.5	33	31	27
3rd quartile	13000	0.4	13	72	0.4	5100	36	11	190	19000	13	3700	230	0.8	200	1.0	42	34	34
95th percentile	18150	0.5	37	100	0.4	5945	44	15	396	20150	28	4615	262	2.4	405	3.9	51	39	40
Maximum	19000	1.1	64	100	0.4	6200	45	18	540	21000	28	4700	270	2.4	600	6.0	52	42	42
Mean	10761	0.4	12	56	0.4	4239	31	10	167	15800	12	3217	199	1.0	171	1.3	35	30	29
Geometric mean	10238	0.4	7	51	0.4	4111	30	9	130	15441	11	3113	195	0.9	131	0.9	34	30	28
Sample std. dev.	3510	0.2	15	22	0.0	1040	7	3	121	3298	7	824	40	0.6	135	1.4	8	5	7
CV (std. dev./mean)	34%	38%	130%	40%	0%	25%	24%	33%	75%	21%	56%	26%	21%	58%	82%	114	19%	24%	
Lower CI of the mean	8965	0.4	4.3	45	0.4	3707	28	8	105	14112	9	2795	179	0.7	101	0.5	31	28	26
Upper CI of the mean	12557	0.5	20	67	0.4	4771	35	11	229	17488	16	3638	219	1.3	240	2.0	40	33	33
Kurtosis	0.7	18.0	6.4	0.1		-0.8	-0.8	1.3	4.1	-1.0	1.8	-0.8	-1.0	2.8	4.7	7.3	-0.5	-0.5	-0.7
Skewness	1.0	4.2	2.4	0.5		0.3	0.2	1.1	1.8	-0.1	1.6	0.4	0.3	2.1	2.0	2.6	0.6	0.4	0.3

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.2 Residential Garden Soil Summaries

Table 10.3.2.1: Summary Statistics for All 0 - 15 cm Residential Garden Soil from North Lively

n = 8	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	11000	0.4	2.5	60	0.4	7700	28	8	60	17000	28	4200	270	0.75	73	0.5	28	33	76
1st quartile	13000	0.4	2.5	76	0.4	8850	29	8	70	19500	33	4950	285	0.75	77	0.5	43	36	95
Median	14500	0.4	4.8	92	0.4	9950	33	8	101	21000	45	5900	310	0.75	111	0.5	49	39	97
3rd quartile	19500	0.6	8.0	115	0.4	12000	43	10	115	22500	87	6650	330	0.75	135	0.5	57	42	105
95th percentile	21650	1.0	8.7	127	0.7	13950	50	11	120	24300	104	6895	347	1.24	147	0.5	70	45	110
Maximum	22000	1.1	9.0	130	0.8	15000	50	11	120	25000	110	7000	350	1.50	150	0.5	72	46	110
Mean	15875	0.5	5.3	94	0.5	10538	36	9	94	21000	58	5775	309	0.84	109	0.5	50	39	97
Geometric mean	15450	0.5	4.5	92	0.4	10321	35	9	91	2086	51	5686	308	0.82	104	0.5	48	39	97
Sample std. dev.	3756	0.2	2.8	23	0.1	2205	8	1	23	2345	30	981	26	0.25	30	0.0	13	4	10
CV (std. dev./mean)	25%	50%	57%	26%	31%	22%	25%	13%	26%	12%	55%	18%	9%	31%	30%	0%	28%	11%	11%
Lower CI of the mean	12516	0.3	2.8	74	0.3	8566	28	8	73	18903	32	4898	285	0.62	82	0.5	38	35	88
Upper CI of the mean	19234	0.8	7.7	115	0.6	12509	43	10	115	23097	85	6652	332	1.07	135	0.5	61	43	106
Kurtosis	-1.2	2.3	-2.5	-1.1	8.0	0.6	-0.6	0.6	-1.7	-0.1	-1	-1.2	-1.0	8.0	-2.3		0.3	-1.1	1.9
Skewness	0.6	1.8	0.1	0.2	2.8	0.9	1.0	1.4	-0.4	0.0	0.7	-0.5	0.1	2.8	0.0		0.3	0.2	-1

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.2: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Gatchell

n = 6	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7200	0.4	2.5	54	0.4	3500	28	8	130	14000	21	2700	170	0.8	120	0.5	22	25	58
1st quartile	8100	0.4	5.0	68	0.4	5100	28	9	140	14000	23	3600	260	0.8	120	0.5	29	25	65
Median	9050	0.4	6.0	78	0.4	6350	28	12	230	15000	69	3900	290	0.8	225	0.8	32	27	81
3rd quartile	10000	1.0	11	120	0.4	12000	35	12	260	16000	88	4300	400	0.8	270	1.0	52	28	170
95th percentile	10000	1.0	12	128	0.4	12750	51	14	395	16000	120	4375	415	0.8	293	1.0	52	28	178
Maximum	10000	1.0	12	130	0.4	13000	56	15	440	16000	130	4400	420	0.8	300	1.0	52	28	180
Mean	8900	0.6	7.1	88	0.4	7717	34	11	238	15000	67	3800	305	0.8	210	0.8	36	27	106
Geometric mean	8828	0.5	6.2	84	0.4	6937	33	11	219	14967	54	3752	292	0.8	197	0.7	35	26	95
Sample std. dev.	1114	0.3	3.3	28	0.0	3541	10	2	103	1000	39	572	85	0.0	72	0.3	12	2	50
CV (std. dev./mean)	14%	52%	52%	35%	0%	50%	33%	22%	47%	7%	64%	16%	30%	0%	37%	37%	35%	6%	52%
Lower CI of the mean	7620	0.3	3.2	56	0.4	3646	22	9	120	13850	22	3143	208	0.8	128	0.5	23	25	49
Upper CI of the mean	10180	0.9	10.9	120	0.4	11788	46	14	357	16150	111	4457	402	0.8	292	1.0	50	28	163
Kurtosis	-2.2	-1.9	-1.3	-1.6		-1.6	4.6	0.0	1.9	-3.3	-1.0	1.3	-0.7		-2.3	-3.3	-1.7	-3.3	-1.8
Skewness	-0.3	1.0	0.4	0.6		0.6	2.1	0.3	1.3	0.0	0.4	-1.2	-0.1		-0.2	0.0	0.6	0.0	0.8

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.3: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Coniston

n = 29	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5500	0.4	2.5	33	0.4	2600	20	6	19	8900	4	1900	84	0.75	39	0.5	25	18	30
10th percentile	7400	0.4	2.5	53	0.4	6320	23	6	54	12000	11	2780	190	0.75	61	0.5	34	21	33
1st quartile	8700	0.4	2.5	56	0.4	7300	27	7	60	14000	13	3050	225	0.75	84	0.5	39	26	46
Median	11000	0.4	6.0	72	0.4	8900	31	9	100	15000	22	3700	250	0.75	130	0.5	42	30	64
3rd quartile	13000	0.4	12	88	0.4	12500	34	15	245	17000	36	4050	280	0.75	315	0.5	48	34	105
95th percentile	13000	0.4	18	110	0.4	19000	39	22	352	18000	108	5840	300	0.75	508	1.4	53	37	186
Maximum	14000	0.4	19	120	0.8	24000	40	24	400	20000	170	6600	320	0.75	570	2.0	54	38	210
Mean	10490	0.4	7.4	74	0.4	10134	30	11	142	15100	33	3693	244	0.75	190	0.6	42	29	83
Geometric mean	10232	0.4	5.7	70	0.4	9114	30	10	106	14853	23	3560	235	0.75	140	0.6	41	29	71
Sample std. dev.	2214	0.0	5.1	22	0.1	4651	5	5	107	2573	36	1030	54	0.00	155	0.4	7	5	49
CV (std. dev./mean)	21%	0%	70%	30%	18%	47%	18%	47%	77%	17%	111	28%	22%	0%	83%	64%	18%	18%	61%
Lower CI of the mean	9633	0.4	5.4	65	0.4	8334	28	9	101	14104	19	3295	223	0.75	131	0.5	39	27	64
Upper CI of the mean	11347	0.4	9.3	82	0.4	11935	32	13	184	16096	47	4092	265	0.75	250	0.8	45	31	102
Kurtosis	-0.7		-0.3	-0.4	29.0	2.0	-0.3	0.8	-0.1	0.5	8.5	2.8	3.2		0.3	12	0.2	-0.4	0.8
Skewness	-0.4		0.8	0.3	5.4	1.2	-0.2	1.3	1.0	-0.7	2.9	1.2	-1.6		1.2	3.6	-0.5	-0.5	1.2

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.4: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Falconbridge

n = 9	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	6	32	0.4	2200	21	8	45	8700	7	1600	96	0.75	60	0.5	18	20	23
1st quartile	7600	0.4	11	35	0.4	3400	23	11	98	11300	13	1850	115	0.75	136	0.5	23	23	32
Median	8000	0.4	26	48	0.4	5600	28	22	360	14000	34	2400	160	0.75	360	0.5	30	25	45
3rd quartile	9600	0.4	115	63	1.7	9950	46	49	895	22500	108	2950	190	0.75	1030	2.0	36	29	112
95th percentile	10440	1.0	288	79	2.4	17400	66	65	1460	32600	192	4280	206	2.42	1280	5.4	42	33	146
Maximum	11000	1.2	400	88	2.8	21000	77	73	1700	37000	240	4800	210	2.50	1400	7.0	45	35	150
Mean	8600	0.5	88	51	1.1	7544	36	31	551	17367	70	2567	155	1.12	581	1.8	30	26	69
Geometric mean	8523	0.5	38	49	0.8	5939	33	23	302	15695	38	2422	150	0.97	355	1.1	29	26	56
Sample std. dev.	1179	0.3	118	17	0.8	5560	17	22	523	8495	72	949	39	0.69	468	2.0	8	4	45
CV (std. dev./mean)	15%	53%	142%	35%	82%	78%	50%	74%	101%	52%	110	39%	27%	65%	85%	117	29%	18%	69%
Lower CI of the mean	7638	0.3	-8	38	0.4	3011	22	13	125	10441	11	1793	123	0.56	200	0.2	23	22	33
Upper CI of the mean	9562	0.8	185	65	1.8	12078	50	48	977	24292	128	3340	187	1.68	963	3.5	37	30	106
Kurtosis	0.0	4.0	5.9	1.0	-0.5	3.2	2.6	-0.4	1.1	2.1	2.5	2.6	-1.3	0.87	-1.4	4.6	-0.2	0.4	-0.6
Skewness	0.9	2.1	2.3	1.0	0.9	1.7	1.6	0.8	1.2	1.5	1.6	1.6	-0.2	1.64	0.5	2.1	0.2	0.9	0.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.5: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Copper Cliff

n = 21	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7700	0.4	2.5	38	0.4	5000	19	7	140	8600	16	2400	120	0.75	130	0.5	35	16	32
10th percentile	9200	0.4	7.0	43	0.4	6300	26	8	230	12000	19	3000	160	0.75	200	1.0	37	22	40
1st quartile	10000	0.4	8.0	63	0.4	6800	27	11	280	13000	20	3200	180	0.75	275	1.5	39	25	43
Median	11000	0.4	16	77	0.4	8600	31	18	470	17000	69	3800	220	0.75	430	2.0	43	28	84
3rd quartile	12000	0.9	28	100	1.0	16000	35	21	700	19000	145	6000	240	0.75	615	3.0	48	31	130
95th percentile	13000	1.4	38	270	1.9	34000	43	23	820	2100	530	7100	670	1.70	800	12	130	35	330
Maximum	13000	1.5	58	330	3.8	38000	64	110	5100	3300	640	7100	780	3.7	3700	36	160	38	380
Mean	11024	0.7	19	97	0.9	12681	32	20	682	1687	125	4462	264	0.94	578	5	53	28	114
Geometric mean	10913	0.6	14	82	0.7	10661	31	16	461	1618	66	4212	234	0.84	416	2	48	27	89
Sample std. dev.	1503	0.4	14	71	0.8	8661	9	21	1008	4972	165	1519	159	0.65	723	7.6	31	5	90
CV (std. dev./mean)	14%	53%	74%	75%	91%	70%	29%	104	151%	30%	136	35%	62%	71%	128%	171	60%	20%	81%
Lower CI of the mean	10323	0.5	12	64	0.5	8641	28	11	212	14552	48	3754	190	0.63	241	1.0	38	25	72
Upper CI of the mean	11725	0.9	25	130	1.3	16721	37	30	1153	19190	202	5170	338	1.24	916	8.1	67	30	156
Kurtosis	0.1	-0.3	1.7	6.0	8.3	3.4	6.3	17.9	19.1	4.4	4.6	-1.3	6.0	16.6	17.8	14.4	8.2	0.6	3.5
Skewness	-0.7	0.9	1.3	2.5	2.6	1.9	1.9	4.1	4.3	1.2	2.3	0.5	2.5	4.0	4.1	3.6	3.0	-0.7	1.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.3 Sand, Gravel, and Undisturbed Natural Soil Summaries

10.3.3.1 Play and Beach Sand Summaries

Table 10.3.3.1.1: Summary Statistics for All 0 - 15 cm Play Sand Samples in the City of Greater Sudbury.

n = 550	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	2700	0.4	2.5	10	0.4	1500	11	3	6	6200	2	1400	70	0.75	11	0.5	10	7	9
10th percentile	4600	0.4	2.5	17	0.4	2190	22	5	14	11000	2	2700	150	0.75	19	0.5	16	24	16
1st quartile	5300	0.4	2.5	20	0.4	2500	25	6	18	13000	3	3000	160	0.75	22	0.5	18	27	18
Median	6350	0.4	2.5	24	0.4	2900	28	8	26	15000	4	3700	180	0.75	27	0.5	23	32	23
3rd quartile	7700	0.4	2.5	31	0.4	3400	33	9	38	17000	6	4200	220	0.75	35	0.5	27	36	28
95th percentile	10000	0.4	6.0	43	0.4	4400	46	11	58	23000	8	5345	290	0.75	58	1.0	37	51	38
Maximum	13000	2.3	34	67	0.8	12000	59	22	210	27000	82	7200	370	4.10	680	2.0	47	62	110
Mean	6613	0.4	3.1	26	0.4	3003	30	8	32	15380	5	3693	194	0.77	36	0.5	23	33	24
Geometric mean	6396	0.4	2.8	25	0.4	2900	29	7	27	14965	4	3588	189	0.76	30	0.5	22	32	23
Sample std. dev.	1735	0.1	2.7	9	0.0	910	8	2	25	3630	5	895	47	0.18	45	0.2	7	9	9
CV (std. dev./mean)	26%	28%	86%	34%	4%	30%	26%	31%	78%	24%	91%	24%	24%	24%	123%	29%	29%	27%	37%
Lower CI of the mean	6467	0.4	2.9	25	0.4	2927	29	8	30	15076	5	3618	190	0.75	32	0.5	23	32	23
Upper CI of the mean	6758	0.4	3.3	27	0.4	3080	31	8	34	15685	5	3768	198	0.78	40	0.6	24	34	25
Kurtosis	0.3	174.2	77.4	1.7	550	1.4	4.6	19.6	0.3	151.0	1.1	0.9	211	29.7	0.7	1.0	20.0		
Skewness	0.7	12.7	7.9	1.2	23.5	3.5	1.1	1.4	3.7	0.6	10.0	0.7	1.0	13.4	8.8	4.8	0.8	0.8	2.8

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.3.1.2: Summary Statistics for All 0 - 15 cm Beach Sand Samples in the City of Greater Sudbury

n = 42	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	14	0.4	1300	18	4	7	10000	3	2200	140	0.75	14	0.5	10	18	10
10th percentile	4920	0.4	2.5	17	0.4	2210	23	7	21	12000	4	2720	170	0.75	29	0.5	17	23	16
1st quartile	5200	0.4	2.5	19	0.4	2600	24	8	23	13000	4	3100	180	0.75	32	0.5	19	28	18
Median	6050	0.4	2.5	24	0.4	3000	30	9	29	15000	5	3550	190	0.75	38	0.5	24	31	23
3rd quartile	7300	0.4	2.5	27	0.4	3600	32	9	36	17000	6	4000	210	0.75	63	0.5	29	34	26
95th percentile	8980	0.4	2.5	35	0.4	4255	35	9	31	18000	6	4185	250	0.75	40	1.0	38	40	29
Maximum	1200	2.2	10	74	0.4	4600	39	12	130	19000	21	4500	250	0.75	170	1.0	39	40	39
Mean	6674	0.4	3.1	27	0.4	3093	29	9	36	15048	6	3517	197	0.75	49	0.6	25	31	23
Geometric mean	6454	0.4	2.9	24	0.4	3010	28	8	30	14841	5	3462	195	0.75	43	0.6	23	30	22
Sample std. dev.	1850	0.3	1.7	13	0	690	5	2	24	2430	4	600	28	0.0	28	0.2	7	5	6
CV (std. dev./mean)	28%	63%	54%	51%	0%	23%	17%	21%	69%	16%	64%	17%	14%	0%	58%	31%	29%	16%	29%
Lower CI of the mean	6090	0.4	2.6	22	0.4	2875	27	8	28	14281	5	3328	189	0.75	40	0.5	22	29	21
Upper CI of the mean	7257	0.5	3.7	31	0.4	3310	30	9	43	1581	7	3706	206	0.75	58	0.6	27	32	25
Kurtosis	1.6	42.0	7.1	5.3		0.0	-0.6	1.8	7.0	-0.7	5.7	-0.7	-0.3		6.5	2.6	-0.5	0.1	0.1
Skewness	1.3	6.5	2.7	2.3		0.0	0.1	-1.0	2.4	-0.2	2.4	-0.4	0.3		2.1	2.1	0.2	-0.4	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.3.2 Crushed Stone and Playground Gravel Summaries

Table 10.3.3.2.1: Summary Statistics for All 0 - 15 cm Playground Gravel Samples in the City of Greater Sudbury

n = 265	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	10	11	10
10th percentile	5800	0.4	2.5	25	0.4	2700	22	5	17	11000	4	3200	160	0.75	25	0.5	20	23	17
1st quartile	6600	0.4	2.5	28	0.4	3400	25	6	26	13000	6	3800	170	0.75	34	0.5	26	26	22
Median	7800	0.4	2.5	34	0.4	4400	29	9	45	15000	8	4800	200	0.75	55	0.5	34	29	29
3rd quartile	9200	0.4	5.0	43	0.4	11000	34	12	83	18000	12	6100	230	0.75	93	0.5	69	33	37
95th percentile	12000	0.4	8.0	68	0.4	69000	43	22	197	23000	20	15000	280	1.97	190	1.0	240	42	58
Maximum	26000	1.5	17	200	1.0	250000	90	33	670	43000	32	26000	510	4.30	370	2.0	340	73	200
Mean	8171	0.4	3.7	39	0.4	14363	30	10	67	15688	10	6005	204	0.87	75	0.6	63	30	32
Geometric mean	7873	0.4	3.2	36	0.4	6551	29	9	48	15159	8	5227	200	0.82	58	0.5	44	29	29
Sample std. dev.	2559	0.1	2.5	20	0.0	33081	8	5	68	4430	5	4042	49	0.44	62	0.2	66	8	19
CV (std. dev./mean)	31%	33%	68%	52%	11%	231%	27%	55%	102	28%	54%	67%	24%	51%	82%	36%	106	27%	59%
Lower CI of the mean	7861	0.4	3.4	36	0.4	10354	29	9	59	15151	9	5515	198	0.82	67	0.5	55	29	30
Upper CI of the mean	8481	0.4	4.0	41	0.4	18371	31	11	75	16225	10	6495	210	0.93	82	0.6	71	31	34
Kurtosis	14.8	34.8	8.7	32.3	150.	26.8	17.3	3.7	24.0	9.0	2.4	8.4	8.5	20.5	5.9	24.0	4.7	8.7	30.2
Skewness	2.9	5.8	2.7	4.7	12.1	4.9	2.9	1.8	3.7	2.0	1.4	2.8	2.1	4.2	2.2	4.4	2.3	2.0	4.5

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.3.2.2: Summary Statistics for All 0 - 15 cm Baseball Infield Crushed Stone Samples in the City of Greater Sudbury

n = 157	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	15	11	10
10th percentile	5770	0.4	2.5	25	0.4	3270	21	5	15	10000	4	3100	150	0.75	23	0.5	26	20	15
1st quartile	6800	0.4	2.5	29	0.4	4600	24	5	20	12000	5	3700	160	0.75	28	0.5	37	24	19
Median	8000	0.4	2.5	36	0.4	8700	27	6	28	13500	6	5400	190	0.75	38	0.5	56	27	25
3rd quartile	9400	0.4	2.5	47	0.4	15000	30	9	51	15000	9	7500	220	0.75	64	0.5	110	30	30
95th percentile	12000	0.4	8.0	68	0.4	131450	36	11	101	19000	13	18150	270	2.11	140	1.0	270	36	34
Maximum	26000	1.5	17	200	1.0	250000	43	20	300	27000	32	26000	510	3.20	370	2.0	340	68	200
Mean	8366	0.4	3.5	42	0.4	21618	28	7	48	13932	8	6861	199	0.92	59	0.6	88	27	28
Geometric mean	8038	0.4	3.1	38	0.4	10081	27	7	34	13588	7	5722	194	0.85	46	0.5	64	27	25
Sample std. dev.	2708	0.2	2.7	23	0.0	41273	5	3	53	3256	5	4894	50	0.48	58	0.2	76	7	20
CV (std. dev./mean)	32%	36%	78%	55%	12%	192%	20%	41%	111	23%	59%	72%	25%	53%	97%	33%	87%	26%	73%
Lower CI of the mean	7940	0.4	3.1	38	0.4	15112	27	7	39	13419	7	6089	191	0.85	50	0.5	76	26	25
Upper CI of the mean	8793	0.5	4.0	45	0.4	28124	28	8	56	14446	9	7632	207	1.00	69	0.6	100	29	31
Kurtosis	15.2	24.7	11.1	27.4	158.	14.9	0.0	2.5	9.7	1.9	7.3	4.2	12.2	7.54	12.0	25.7	1.6	10.6	39.7
Skewness	2.9	4.9	3.3	4.4	12.6	3.8	0.6	1.5	3.0	1.1	2.3	2.1	2.6	2.85	3.1	4.4	1.6	2.0	5.6

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.3.3 Undisturbed Natural Soil Summaries

Table 10.3.3.3.1: Summary Statistics for Undisturbed Natural Soil Samples from All Sampling Locations in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Undisturbed Natural Soil, n = 14																			
Minimum	5200	0.4	6.0	67	0.4	1700	19	7	78	14000	8	1100	130	0.75	110	0.5	18	17	31
10^{th} percentile	8160	0.4	7.2	70	0.4	2230	21	13	120	14600	17	1260	140	0.75	157	0.5	26	24	34
1st quartile	9100	0.4	21	71	0.4	2300	25	18	280	16000	30	1500	150	0.75	380	1.0	31	24	36
Median	11000	0.4	25	82	0.9	2850	33	26	545	19000	53	2350	265	0.75	638	1.8	33	31	56
3rd quartile	15000	1.1	41	100	1.4	7400	42	48	940	30000	94	3400	410	0.75	1215	2.0	47	34	64
95^{th} percentile	15350	3.6	59	134	2.7	19200	50	100	1605	46000	147	3935	625	1.29	3249	4.5	50	36	134
Maximum	16000	4.3	60	140	3	27000	51	100	1800	46000	156	4000	690	2.30	3284	5.5	51	36	140
Mean	11407	1.1	29	89	1.1	5943	34	37	660	23286	63	2443	322	0.86	983	1.9	36	29	61
Geometric mean	10951	0.7	23	87	0.8	3983	32	28	455	21406	47	2253	278	0.81	608	1.5	34	29	54
Sample std. dev.	3043	1.2	17	22	0.8	6803	10	29	519	10593	45	944	176	0.40	1004	1.4	10	5	33
CV (std. dev./mean)	28%	114%	59%	26%	78%	119%	30%	82%	82%	47%	75%	40%	57%	48%	106%	74%	28%	19%	56%
Lower CI of the mean	9584	0.4	19	76	0.6	1867	28	19	349	16939	36	1877	217	0.62	381	1.1	30	26	41
Upper CI of the mean	13230	1.7	39	103	1.6	10019	39	54	971	29633	90	3008	427	1.10	1584	2.7	41	32	80
Kurtosis	-0.5	4.2	-0.5	0.4	1.1	6.3	-0.8	1.3	0.1	0.9	-0.2	-1.1	-0.3	14	1.9	2.5	-0.7	0.3	2.0
Skewness	-0.2	2.2	0.5	1.2	1.3	2.5	0.3	1.5	1.0	1.4	0.9	0.3	0.9	3.7	1.7	1.5	0.3	-0.8	1.6
5 to 10 cm Undisturbed Natural Soil, n = 14																			
Minimum	6600	0.4	2.5	40	0.4	1200	20	5	41	10000	7	1500	110	0.75	68	0.5	16	20	21
10^{th} percentile	8830	0.4	2.5	45	0.4	1830	24	7	61	13600	8	1690	123	0.75	76	0.5	26	24	31
1st quartile	13000	0.4	2.5	47	0.4	2100	28	8	64	15000	9	1900	160	0.75	81	0.5	28	28	38
Median	14500	0.4	7.0	79	0.4	2450	34	12	85	17000	12	2400	270	0.75	105	1.0	32	34	41
3rd quartile	17000	0.4	12	110	0.4	4400	48	15	240	19000	18	4100	340	0.75	145	1.0	49	40	48
95^{th} percentile	21400	0.8	19	148	1.0	4835	59	27	484	23000	43	5255	504	0.75	588	2.0	56	43	96
Maximum	24000	1.6	23	180	1.0	4900	68	28	510	23000	47	6100	510	0.75	594	2.0	57	46	120
Mean	14750	0.5	8.9	85	0.5	2993	38	13	168	17286	18	3036	269	0.75	191	1.0	36	33	49
Geometric mean	13995	0.4	6.9	76	0.5	2758	36	12	119	16900	14	2750	238	0.75	139	0.9	34	33	45
Sample std. dev.	4521	0.3	6.1	40	0.2	1181	13	7	153	3554	13	1384	128	0.00	181	0.5	12	7	24
CV (std. dev./mean)	32%	66%	72%	49%	46%	41%	36%	53%	94%	21%	77%	47%	50%	0%	98%	52%	35%	23%	51%
Lower CI of the mean	12041	0.3	5.2	61	0.4	2285	30	9	77	15156	10	2207	192	0.75	83	0.7	28	29	34
Upper CI of the mean	17459	0.7	13	108	0.7	3701	46	17	260	19415	25	3865	345	0.75	300	1.3	43	38	63
Kurtosis	0.1	14.0	0.3	0.6	0.7	-1.3	-0.1	0.7	0.8	0.0	0.7	-0.4	-0.6		1.4	0.2	-0.6	-0.6	4.6
Skewness	0.1	3.7	1.0	0.9	1.6	0.4	0.7	1.1	1.4	0.0	1.5	0.8	0.6		1.7	1.0	0.6	-0.2	2
10 to 20 cm Undisturbed Natural Soil, n = 14																			
Minimum	10000	0.4	2.5	46	0.4	1700	28	6	22	14000	5	2300	110	0.75	52	0.5	23	28	24
10^{th} percentile	12300	0.4	2.5	47	0.4	1930	31	7	24	16000	6	2360	130	0.75	52	0.5	25	29	34
1st quartile	14000	0.4	2.5	49	0.4	2100	32	9	28	16000	7	2500	140	0.75	54	0.5	28	31	38
Median	17000	0.4	2.5	62	0.4	2650	40	10	52	18500	8	3150	190	0.75	61	0.5	34	36	43
3rd quartile	20000	0.4	2.5	110	0.4	4100	50	11	68	20000	8	5000	290	0.75	84	1.0	51	41	56
95^{th} percentile	23700	1.1	7.1	134	0.4	4435	58	12	89	21700	10	5715	331	0.75	98	1.0	55	46	68
Maximum	25000	1.4	9.0	140	0.4	4500	61	13	110	23000	12	6300	370	0.75	104	1.0	56	49	71
Mean	17071	0.5	3.5	80	0.4	2993	42	10	52	18357	8	3750	218	0.75	69	0.7	37	36	47
Geometric mean	16552	0.5	3.1	74	0.4	2830	41	9	47	18209	8	3543	203	0.75	66	0.7	36	36	45
Sample std. dev.	4183	0.3	2.0	33	0.0	996	10	2	24	2318	2	1277	81	0.00	18	0.2	11	6	13
CV (std. dev./mean)	25%	59%	59%	43%	0%	35%	25%	22%	48%	13%	21%	35%	39%	0%	27%	36%	32%	18%	29%
Lower CI of the mean	14565	0.3	2.3	60	0.4	2396	36	8	38	16968	7	2985	169	0.75	58	0.6	30	33	39
Upper CI of the mean	19578	0.7	4.6	100	0.4	3590	48	11	66	19746	9	4515	266	0.75	79	0.9	44	40	54
Kurtosis	-0.6	6.2	3.5	-1.4		-1.7	-0.8	-0.3	0.7	-0.2	3.1	-1.1	-1.3		-0.9	-2.2	-1.2	-0.8	-0.5
Skewness	0.3	2.6	2.1	0.6		0.3	0.5	-0.3	0.8	0.1	1.1	0.6	0.3		0.8	0.3	0.6	0.5	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.4 Residential Vegetable Summaries

Table 10.3.4.1: Summary Statistics for All Residential Garden Vegetables Collected in the City of Greater Sudbury

n = 148	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.7	7.0	0.1	838	0.5	0.2	5	26	0.5	840	5	0.2	2.1	0.2	1.2	0.5	10
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	8	0.2	4.5	0.2	2.4	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2700	0.5	0.2	9	80	0.5	2150	13	0.5	8.8	0.2	7.4	0.5	27
3rd quartile	82	0.2	0.4	14	23	0.3	5450	0.8	0.4	18	145	1.5	3500	23	1.1	23	0.4	16	0.5	44
95th percentile	620	0.2	1.4	35	33	0.8	19000	2.4	1.9	64	1065	39	6265	88	4.4	54	3.0	43	1.6	89
Maximum	2000	0.4	9.0	60	45	2.0	31000	6.4	4.9	230	2800	260	13000	380	17.0	190	22	67	5.1	300
Mean	135	0.2	0.5	10	18	0.3	5382	0.9	0.5	18	217	7.1	2684	26	1.2	18	0.8	12	0.7	34
Geometric mean	28	0.2	0.3	4.5	16	0.2	2965	0.7	0.3	11	91	1.1	2061	15	0.6	9	0.3	6	0.6	25
Sample std. dev.	319	0.0	0.8	12	8.5	0.3	6309	0.9	0.6	28	435	27	2063	47	2.2	27	2.5	13	0.7	32
CV (std. dev./mean)	237%	11%	179%	125%	48%	116%	118%	107%	135%	157%	201%	383%	77%	183%	181%	146%	298%	111%	100%	95%
Lower CI of the mean	83	0.2	0.3	8	17	0.2	4354	0.7	0.4	13	146	3	2348	18	0.8	14	0.4	10	0.6	29
Upper CI of the mean	187	0.2	0.6	12	19	0.3	6411	1.0	0.6	23	288	11	3020	33	1.6	23	1.2	14	0.8	40
Kurtosis	17.1	54.6	76.3	4.9	0.1	13.7	3.1	17.3	17.7	26.8	17	56.3	6.1	40.1	24.4	20.3	47.1	2.5	21.7	30.2
Skewness	3.9	7.1	7.8	2.1	0.6	3.4	1.9	4.0	3.7	4.6	3.9	6.9	2	5.8	4.5	3.9	6.5	1.7	4.5	4.3

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.2: Summary Statistics for All Residential Garden Vegetables Collected in the City of Greater Sudbury, minus Root and Shoot 2.5 µg/g Lead

n = 136	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2.2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.6	7	0.1	830	0.5	0.2	4	26	0.5	815	5.1	0.2	2	0.2	1.2	0.5	9
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	7.5	0.2	4.5	0.2	2.3	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2500	0.5	0.2	8	74	0.5	2250	13	0.5	8.2	0.2	7.1	0.5	26
3rd quartile	82	0.2	0.4	12	23	0.3	6350	0.8	0.4	18	145	1.1	3600	25	1.1	22	0.4	16	0.5	44
95th percentile	668	0.2	1.4	38	33	0.9	19250	2.4	1.9	63	1100	5.4	6325	96	4.8	52	3.3	42	1.8	87
Maximum	2000	0.4	9.0	60	45	2	31000	6.4	4.9	230	2800	38	13000	380	17	180	22	67	5.1	300
Mean	143	0.2	0.5	9.9	18	0.3	5561	0.9	0.5	18	227	1.8	2726	27	1.3	17	0.9	12	0.7	34
Geometric mean	28	0.2	0.3	4.4	15	0.2	2972	0.7	0.3	10	91	0.8	2064	15	0.6	8.8	0.3	6.1	0.6	25
Sample std. dev.	332	0.0	0.9	13	9	0.3	6532	1.0	0.7	28	452	4.8	2129	49	2.2	23	2.6	13	0.7	33
CV (std. dev./mean)	233%	9%	184%	128%	49%	116%	118%	109%	137%	161%	200%	269%	78%	182%	180%	136%	292%	114%	101%	98%
Lower CI of the mean	87	0.2	0.3	7.8	16	0.2	4449	0.7	0.4	13	150	1.0	2363	19	0.9	13	0.5	9.4	0.6	29
Upper CI of the mean	199	0.2	0.6	12	19	0.3	6673	1.1	0.6	23	304	2.6	3088	35	1.6	21	1.3	14	0.8	40
Kurtosis	15.4	136.0	74.4	4.9	0.1	12.6	2.6	15.7	17.6	27.8	15.3	32.4	5.6	36.8	22.5	21.3	43.2	2.7	19.6	30
Skewness	3.8	11.7	7.8	2.2	0.6	3.3	1.8	3.8	3.7	4.7	3.8	5.5	1.9	5.6	4.3	3.9	6.2	1.7	4.3	4.3

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.3: Summary Statistics for All Residential Root Vegetables Collected in the City of Greater Sudbury, minus 2.5 µg/g Lead

n = 36	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2.6	21	0.5	290	3.4	0.2	0.8	0.2	0.5	0.5	2
10th percentile	8	0.2	0.2	0.7	5.0	0.1	270	0.5	0.2	4.4	29	0.5	870	4.9	0.2	1.7	0.2	0.8	0.5	10
1st quartile	13	0.2	0.2	2.4	8.0	0.1	1300	0.5	0.2	5.5	36	0.5	1150	5.9	0.2	2.5	0.2	1.8	0.5	14
Median	28	0.2	0.2	6.3	14	0.1	1700	0.5	0.2	6.8	69	0.5	1400	8.3	0.2	5.2	0.2	5.9	0.5	17
3rd quartile	59	0.2	0.2	17	18	0.2	2350	0.5	0.2	8.9	100	0.6	1750	17	0.4	8.2	0.2	9.3	0.5	28
95th percentile	87	0.2	0.5	32	23	0.3	3475	0.6	0.4	16	143	1.4	2700	110	0.6	18	0.5	12	0.5	42
Maximum	120	0.2	0.7	60	24	0.4	5600	0.9	0.5	27	160	1.6	3200	380	1.2	26	3.0	18	0.5	56
Mean	38	0.2	0.2	11	13	0.2	1788	0.5	0.2	8.0	73	0.7	1488	28	0.3	6.6	0.3	5.9	0.5	20
Geometric mean	27	0.2	0.2	5.5	12	0.1	1339	0.5	0.2	7.1	62	0.6	1324	12	0.3	4.9	0.2	4.0	0.5	17
Sample std. dev.	30	0.0	0.1	13	6	0.1	1114	0.1	0.1	4.5	39	0.3	654	65	0.2	5.6	0.5	4.2	0.0	12
CV (std. dev./mean)	79%	0%	47%	121%	46%	51%	63%	13%	31%	57%	54%	48%	45%	236%	66%	85%	153%	72%	0%	58%
Lower CI of the mean	28	0.2	0.2	6.4	11	0.1	1406	0.5	0.2	6.4	60	0.5	1263	5.6	0.2	4.7	0.1	4.5	0.5	16
Upper CI of the mean	48	0.2	0.3	15	15	0.2	2170	0.5	0.2	10	86	0.8	1712	50	0.4	8.6	0.5	7.4	0.5	24
Kurtosis	0.1		12.3	6.2	-1.3	1.0	2.4	27.9	9.3	7.6	-0.7	3.1	0.5	24.7	10.0	3.9	33.9	0.0		1.8
Skewness	0.9		3.6	2.3	0.1	1.3	1.0	5.1	3.1	2.4	0.5	2.1	0.6	4.7	2.8	1.9	5.8	0.6		1.3

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.4: Summary Statistics for All Residential Fruit Vegetables Collected in the City of Greater Sudbury, minus 2.5 µg/g Lead

n = 100	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	490	0.5	0.2	1.9	15	0.5	310	2.2	0.2	0.5	0.2	0.7	0.5	4
10th percentile	5	0.2	0.2	0.6	8	0.1	949	0.5	0.2	4.5	25	0.5	788	5.7	0.2	2.4	0.2	1.3	0.5	9
1st quartile	5	0.2	0.2	1.1	12	0.1	1500	0.5	0.2	5.6	40	0.5	1200	9.4	0.4	5.4	0.2	2.3	0.5	17
Median	12	0.2	0.2	4.9	19	0.2	4300	0.5	0.2	10	81	0.5	3050	15	0.7	11	0.2	8.0	0.5	32
3rd quartile	160	0.2	0.6	12	26	0.3	12000	1.1	0.6	23	235	1.4	4250	30	1.6	26	0.6	22	0.5	47
95th percentile	900	0.2	1.6	37	34	1.1	20050	3.2	2.0	65	1220	8.0	6675	69	6.1	53	4.8	43	2.4	96
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	370	17	180	22	67	5.1	300
Mean	181	0.2	0.5	9.6	19	0.3	6920	1.0	0.6	21	282	2.2	3171	27	1.6	20	1.1	14	0.8	39
Geometric mean	29	0.2	0.3	4.1	17	0.2	3960	0.8	0.4	12	105	0.9	2421	17	0.8	11	0.4	7.1	0.6	29
Sample std. dev.	379	0.0	1.0	13	9	0.3	7114	1.1	0.7	32	516	5.6	2294	42	2.5	25	3.0	15	0.8	37
CV (std. dev./mean)	211%	10%	179%	132%	46%	115%	103%	107%	130%	154%	184%	253%	73%	157%	160%	125%	272%	107%	105%	95%
Lower CI of the mean	105	0.2	0.4	7.1	18	0.2	5501	0.8	0.4	15	179	1.1	2714	18	1.1	15	0.5	11	0.6	32
Upper CI of the mean	256	0.2	0.7	12	21	0.4	8338	1.3	0.7	28	385	3.3	3629	35	2.1	26	1.7	17	1.0	47
Kurtosis	10.5	100.0	55.9	4.7	-0.1	8.8	1.1	10.9	12.6	20.4	10.4	23.0	4.2	46.7	16.6	16.5	31.7	1.2	13.5	24.3
Skewness	3.1	10.0	6.8	2.1	0.5	2.8	1.3	3.2	3.2	4.1	3.1	4.7	1.6	6.1	3.7	3.4	5.4	1.3	3.6	3.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.5: Summary Statistics for All Residential Leafy Vegetables Collected in the City of Greater Sudbury

n = 37	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	18	0.2	0.2	1.2	5	0.1	1200	0.5	0.2	6	41	0.5	1200	4	0.2	3.4	0.2	1.2	0.5	17
10th percentile	49	0.2	0.2	7.5	17	0.2	4540	0.6	0.2	14	120	0.5	2880	14	0.3	7.2	0.2	14	0.5	26
1st quartile	84	0.2	0.3	10	20	0.3	9650	0.7	0.3	20	170	0.7	3400	17	0.4	10	0.2	20	0.5	40
Median	270	0.2	0.6	16	26	0.4	14000	1.3	0.5	26	370	1.7	4400	31	0.9	23	0.6	27	0.6	46
3rd quartile	600	0.2	1.3	30	31	0.7	19000	2.4	1.2	58	885	4.1	6150	48	1.7	50	1.3	41	1.5	78
95th percentile	1660	0.2	2.3	52	39	1.6	24400	5.1	2.6	136	2400	24	9200	73	3.4	93	4.2	50	4.2	110
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	110	6.5	180	5.3	67	5.1	300
Mean	462	0.2	1.0	21	26	0.6	14230	1.8	0.9	45	665	5	5084	36	1.3	33	1.0	29	1.3	61
Geometric mean	245	0.2	0.7	16	24	0.4	12034	1.3	0.6	33	403	2	4594	30	0.9	22	0.6	25	0.9	51
Sample std. dev.	510	0.0	1.5	14	8.3	0.5	6804	1.5	1.0	44	696	8.5	2421	22	1.2	35	1.3	14	1.2	47
CV (std. dev./mean)	112%	16%	142%	71%	32%	81%	48%	87%	109%	100%	106%	172%	48%	63%	100%	106%	127%	47%	95%	79%
Lower CI of the mean	289	0.2	0.6	16	23	0.4	11930	1.3	0.6	30	430	2.1	4265	29	0.8	21	0.6	25	0.9	45
Upper CI of the mean	634	0.2	1.5	26	29	0.7	16530	2.3	1.3	59	900	7.9	5902	44	1.7	45	1.5	34	1.7	76
Kurtosis	2.5	37.0	23.6	0.8	0.3	2.2	0.2	2.4	6.6	8.5	2.4	6.7	3.1	2.2	7.6	8.1	4.5	0.3	2.9	17.9
Skewness	1.7	6.1	4.5	1.2	0.0	1.6	0.2	1.7	2.4	2.7	1.7	2.7	1.6	1.3	2.4	2.6	2.2	0.5	1.9	3.7

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.6: Summary Statistics for Lively Residential Garden Vegetables

n = 18	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.3	10	0.1	680	0.5	0.2	3.6	23	0.5	990	5	0.2	2.1	0.2	2	0.5	10
10th percentile	5	0.2	0.2	1.9	16	0.1	1047	0.5	0.2	8.8	48	0.5	1347	6	0.2	3.0	0.2	3.3	0.5	19
1st quartile	11	0.2	0.2	2.7	20	0.1	1600	0.5	0.2	10	68	0.7	1800	10	0.2	4.5	0.2	6.7	0.5	27
Median	35	0.2	0.2	10	24	0.2	3050	0.5	0.2	15	90	2.4	2850	14	0.5	6.0	0.2	11	0.5	34
3rd quartile	150	0.2	0.2	25	27	0.2	7500	1.1	0.3	26	210	42	4000	19	1.5	19	0.2	24	0.5	41
95th percentile	1057	0.3	0.5	42	33	1.2	15450	2.8	1.0	44	1440	96	7560	56	4.7	83	0.2	49	2.7	110
Maximum	2000	0.3	1.1	50	37	1.6	18000	4.9	1.9	98	2800	260	13000	110	5.7	190	0.3	67	4.6	110
Mean	221	0.2	0.3	14	24	0.3	5554	1.0	0.4	21	335	32	3449	21	1.4	23	0.2	19	0.9	41
Geometric mean	45	0.2	0.2	8.4	23	0.2	3535	0.8	0.3	16	129	6	2793	15	0.6	9.2	0.2	12	0.6	34
Sample std. dev.	479	0.0	0.2	14	6	0.4	5170	1.1	0.4	20	657	60	2697	24	1.7	44	0.0	17	1.0	27
CV (std. dev./mean)	223%	15%	78%	99%	27%	139%	96%	108%	114%	100%	202%	193%	80%	118%	128%	193%	11%	95%	120%	68%
Lower CI of the mean	-24	0.2	0.2	7.4	20	0.1	2909	0.5	0.2	11	-0.9	1.3	2069	8.8	0.5	0.9	0.2	10	0.3	27
Upper CI of the mean	466	0.2	0.4	22	27	0.5	8199	1.6	0.6	31	671	62	4829	33	2.2	46	0.2	28	1.4	55
Kurtosis	11.0	6.0	14.1	0.9	0.4	7.4	0.6	10.3	13.1	12.0	11.5	12.4	8.5	10.3	1.3	12.0	18.0	1.9	11.0	3.2
Skewness	3.2	2.7	3.6	1.3	0.0	2.8	1.3	3.1	3.5	3.2	3.3	3.3	2.6	3.1	1.6	3.3	4.2	1.5	3.3	1.8

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.7: Summary Statistics for Gatchell Residential Garden Vegetables

n = 21	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	190	0.5	0.2	2.6	24	0.5	730	4	0.2	2.3	0.2	0.5	0.5	8
10th percentile	5	0.2	0.2	1.0	10	0.1	1300	0.5	0.2	4.8	53	0.5	900	5	0.2	2.9	0.2	2.0	0.5	13
1st quartile	6	0.2	0.2	2.0	12	0.1	1850	0.5	0.2	6.6	60	0.5	1300	8	0.3	4.4	0.2	5.2	0.5	16
Median	63	0.2	0.2	4.3	20	0.1	5000	0.7	0.2	13	120	0.5	3200	14	0.7	13	0.3	12	0.5	39
3rd quartile	230	0.2	0.8	15	27	0.3	9000	1.2	0.4	26	335	2.1	3800	26	2.0	23	0.4	23	0.5	46
95th percentile	810	0.2	1.5	31	31	0.6	19000	3.2	0.9	57	1100	4.9	6200	47	3.0	27	1.0	43	2.3	59
Maximum	1300	0.2	2.3	37	33	1.0	30000	4.7	2.2	64	1800	11	8400	91	3.5	41	1.6	49	3.3	78
Mean	194	0.2	0.6	10	19	0.2	6790	1.1	0.4	20	298	1.8	3167	20	1.1	14	0.4	15	0.8	35
Geometric mean	42	0.2	0.4	5.1	17	0.2	4069	0.9	0.3	14	142	1.0	2562	14	0.7	11	0.4	9.4	0.6	30
Sample std. dev.	322	0.0	0.6	11	8	0.2	6970	1.0	0.5	17	429	2.5	1942	20	1.0	9.9	0.3	13	0.7	18
CV (std. dev./mean)	170%	0%	103%	110%	42%	94%	105%	94%	105%	89%	147%	139%	63%	100%	95%	72%	79%	89%	91%	52%
Lower CI of the mean	44	0.2	0.3	5.1	16	0.1	3539	0.6	0.2	12	98	0.7	2261	11	0.6	10	0.3	9.1	0.5	27
Upper CI of the mean	345	0.2	0.8	15	23	0.3	10041	1.6	0.7	27	499	3.0	4072	30	1.6	19	0.6	21	1.1	44
Kurtosis	6.0		2.4	0.6	-1.0	5.2	4.9	6.6	9.9	1.4	6.6	8.6	1.0	6.9	-0.4	0.7	5.7	0.9	7.6	-0.3
Skewness	2.4		1.7	1.3	-0.1	2.2	2.1	2.5	2.9	1.4	2.5	2.7	1.0	2.4	1.0	0.9	2.2	1.2	2.8	0.3

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.8: Summary Statistics for Coniston Residential Garden Vegetables

n = 48	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	120	0.5	0.2	2	16	0.5	540	2	0.2	1	0.2	0.6	0.5	6
10th percentile	5	0	0.2	1	10	0.1	886	0.5	0.2	4	23	0.5	973	5	0.2	1	0.2	1.1	0.5	10
1st quartile	5	0.2	0.2	1	14	0.1	1400	0.5	0.2	5	35	0.5	1200	6	0.3	3	0.2	2.3	0.5	15
Median	14	0.2	0.2	3	18	0.1	2300	0.5	0.2	7	67	0.5	1800	11	0.5	7	0.2	7.2	0.5	22
3rd quartile	53	0.2	0.2	12	23	0.2	5450	0.7	0.3	11	110	0.5	3300	14	0.7	10	0.2	13	0.5	35
95th percentile	213	0.2	0.6	37	34	0.6	19000	1.3	0.4	19	287	1.8	7120	32	3.5	27	0.5	34	0.5	79
Maximum	1100	0.2	1.0	60	43	0.8	21000	3.8	1.4	24	1600	110	12000	59	17	49	1.2	41	2.8	300
Mean	63	0.2	0.3	9	19	0.2	5268	0.7	0.3	9	122	3.1	2573	13	1.3	9	0.2	10	0.6	33
Geometric mean	20	0.2	0.2	3	17	0.2	2692	0.6	0.2	7	69	0.7	1993	10	0.6	6	0.2	5.7	0.5	24
Sample std. dev.	164	0.0	0.2	14	8	0.2	6237	0.5	0.2	5	233	16	2195	11	2.9	9	0.2	11	0.3	43
CV (std. dev./mean)	262%	0%	63%	149%	41%	80%	120%	73%	82%	63%	194%	515%	86%	87%	220%	107%	67%	106%	61%	131%
Lower CI of the mean	15	0.2	0.2	5	17	0.2	3438	0.6	0.2	7	53	-1.5	1929	10	0.5	6	0.2	7.1	0.5	21
Upper CI of the mean	111	0.2	0.3	13	21	0.3	7098	0.9	0.3	10	190	7.7	3217	16	2.2	12	0.3	13	0.7	46
Kurtosis	34.2		8.5	6.6	1.4	3.4	0.8	28.1	18.2	0.8	34.5	47.3	7.1	6.9	20.6	7.0	24.9	1.5	44	30.9
Skewness	5.6		2.9	2.5	1.0	2.0	1.5	4.9	4.2	1.3	5.6	6.9	2.4	2.5	4.4	2.5	4.7	1.5	6.5	5.2

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.9: Summary Statistics for Falconbridge Residential Garden Vegetables

n = 12	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	6	0.1	290	0.5	0.4	6	35	0.5	1000	7	0.2	9	0.2	0.7	0.5	15
10th percentile	5	0.2	0.2	0.5	8	0.1	702	0.5	0.4	6	37	0.5	1110	8	0.3	17	0.2	1.0	0.5	17
1st quartile	5	0.2	0.2	0.8	11	0.2	1100	0.5	0.6	7	44	0.5	1200	9	0.4	19	0.2	1.6	0.5	20
Median	8	0.2	0.2	1.3	18	0.2	1900	0.5	1.1	8	65	0.5	2450	11	0.6	31	0.2	2.5	0.5	32
3rd quartile	20	0.2	0.6	5.4	19	0.3	3200	0.5	1.8	12	110	1.6	3200	20	0.7	44	0.2	9.1	0.5	48
95th percentile	69	0.2	1.5	14	21	0.5	5090	0.6	2.1	18	180	62	4005	23	0.9	49	0.2	14	0.5	72
Maximum	82	0.3	1.9	24	23	0.5	5200	0.8	2.2	25	180	130	4500	24	1.1	51	0.2	16	0.5	92
Mean	19	0.2	0.5	4.1	15	0.2	2339	0.5	1.2	10	85	12	2367	14	0.6	31	0.2	5.3	0.5	37
Geometric mean	11	0.2	0.3	1.9	14	0.2	1778	0.5	1.0	9	73	1.3	2086	13	0.5	28	0.2	3.3	0.5	32
Sample std. dev.	24	0.0	0.5	6.3	5	0.1	1538	0.1	0.6	5	50	36	1128	6	0.2	13	0.0	5.0	0.0	21
CV (std. dev./mean)	129%	14%	109%	162%	36%	54%	69%	16%	55%	55%	61%	311%	50%	45%	44%	44%	0%	100%	0%	60%
Lower CI of the mean	3	0.2	0.1	-0.1	11	0.2	1318	0.5	0.8	6	52	-12	1618	10	0.4	23	0.2	1.9	0.5	23
Upper CI of the mean	35	0.2	0.8	8.3	18	0.3	3360	0.6	1.6	13	118	36	3115	18	0.7	40	0.2	8.6	0.5	51
Kurtosis	3.4	12.0	4.5	9.1	-1.3	1.2	-0.5	12.0	-1.5	5.6	-0.1	11.9	-1.2	-1.5	1.0	-1.4		0.0		2.6
Skewness	2.0	3.5	2.1	2.9	-0.3	1.4	0.7	3.5	0.2	2.2	1.0	3.5	0.3	0.5	0.7	-0.1		1.2		1.5

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.10: Summary Statistics for Copper Cliff Residential Garden Vegetables

n = 49	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	490	0.5	0.2	2	15	0.5	290	4	0.2	0.7	0.2	0.7	0.5	2
10th percentile	5	0.2	0.2	1	5	0.1	842	0.5	0.2	5	26	0.5	418	6	0.2	1.5	0.2	1.1	0.5	5
1st quartile	7	0.2	0.2	3	7	0.1	1400	0.5	0.2	6	36	0.5	1100	13	0.2	5.3	0.2	2.2	0.5	12
Median	19	0.2	0.2	6	12	0.2	2300	0.5	0.2	8	73	0.5	1500	20	0.4	15	0.5	5.3	0.5	24
3rd quartile	135	0.2	0.6	13	20	0.3	5050	0.8	0.4	29	190	1.4	3300	39	1.1	33	1.5	17	0.5	45
95th percentile	620	0.2	2.1	29	33	1.2	20600	2.5	2.2	109	1060	17	5860	120	6.3	75	8.1	43	1.6	91
Maximum	1900	0.4	9.0	58	45	2.0	31000	6.4	4.9	230	2400	38	6400	380	9.4	180	22	52	5.1	120
Mean	177	0.2	0.7	10	15	0.3	5573	1.0	0.6	27	264	2.9	2383	45	1.2	25	2.0	11	0.8	32
Geometric mean	34	0.2	0.4	6	12	0.2	3024	0.7	0.3	13	93	1.0	1729	23	0.5	11	0.7	5.6	0.6	21
Sample std. dev.	372	0.0	1.3	12	9	0.4	6908	1.2	0.9	43	507	7.2	1758	75	2	33	4.1	14	0.8	28
CV (std. dev./mean)	212%	14%	197%	114%	63%	130%	125%	124%	159%	160%	194%	249%	75%	166%	173%	135%	209%	121%	110%	90%
Lower CI of the mean	69	0.2	0.3	7	12	0.2	3569	0.6	0.3	15	117	0.8	1873	24	0.6	15	0.8	7.5	0.5	24
Upper CI of the mean	285	0.2	1.1	14	18	0.4	7578	1.3	0.8	40	411	5.0	2894	67	1.8	34	3.2	15	1.0	40
Kurtosis	12.3	49.0	33.4	7.1	0.8	9.0	3.4	14.0	12.4	10.4	11.4	14.7	-0.5	14.2	8.5	10.0	14.3	1.5	17.7	1.4
Skewness	3.4	7.0	5.4	2.4	1.1	3.0	1.9	3.7	3.4	3.0	3.3	3.8	0.8	3.7	3	2.8	3.7	1.6	4.1	1.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.5 Box and Whisker Plots of 15 Elements In Urban Soil by Community Groups in the City of Greater Sudbury

(OC - Outer Communities, IC - Inner Communities, SC - Sudbury Core, CO - Coniston, FA - Falconbridge, CC - Copper Cliff)

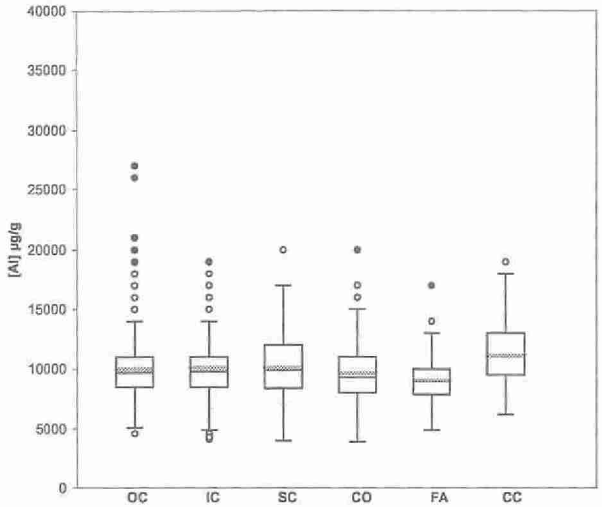


Figure 10.3.5.1: Aluminum, 0 to 5 cm, by Communities

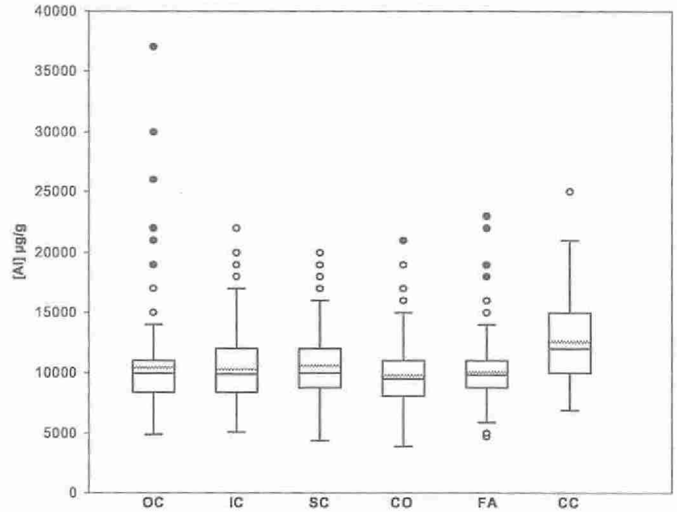


Figure 10.3.5.1b: Aluminum, 5 to 10 cm, by Communities

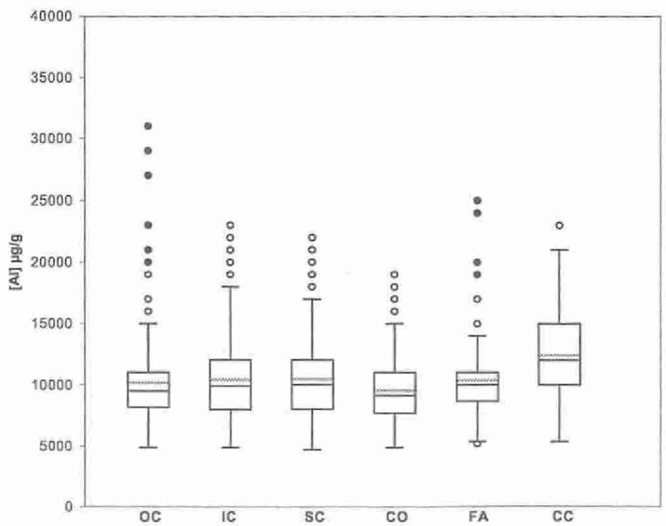


Figure 10.3.5.1c: Aluminum, 10 to 20 cm, by Communities

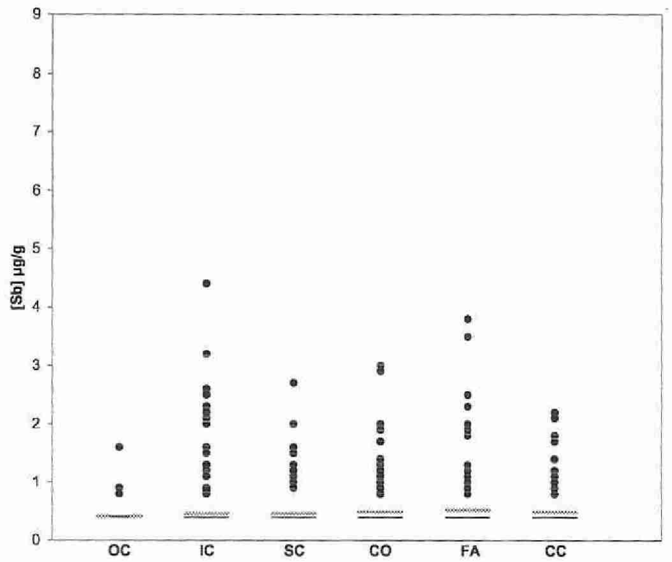


Figure 10.3.5.2: Antimony, 0 to 5 cm, by Communities

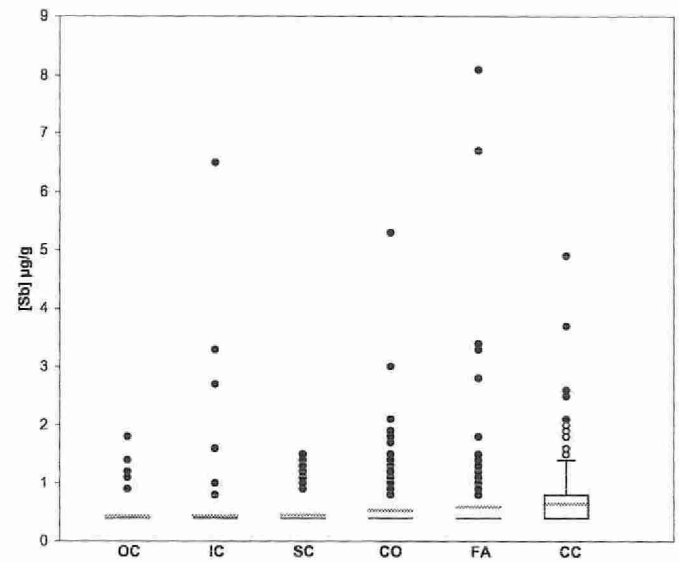


Figure 10.3.5.2b: Antimony, 5 to 10 cm, by Communities

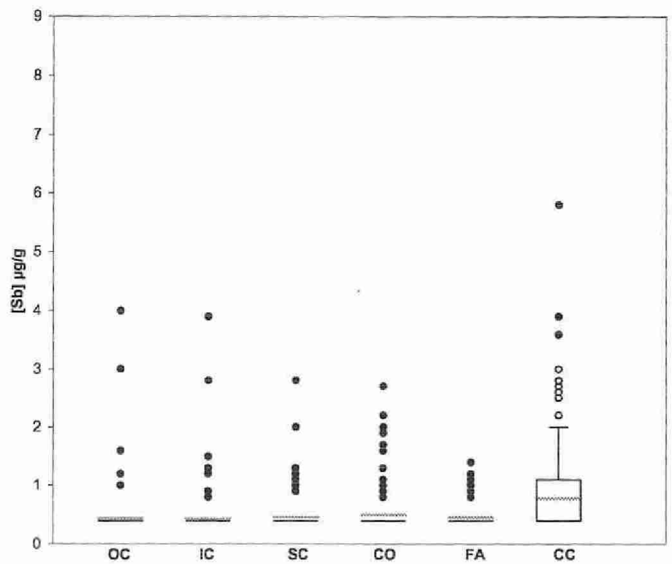


Figure 10.3.5.2c: Antimony, 10 to 20 cm, by Communities

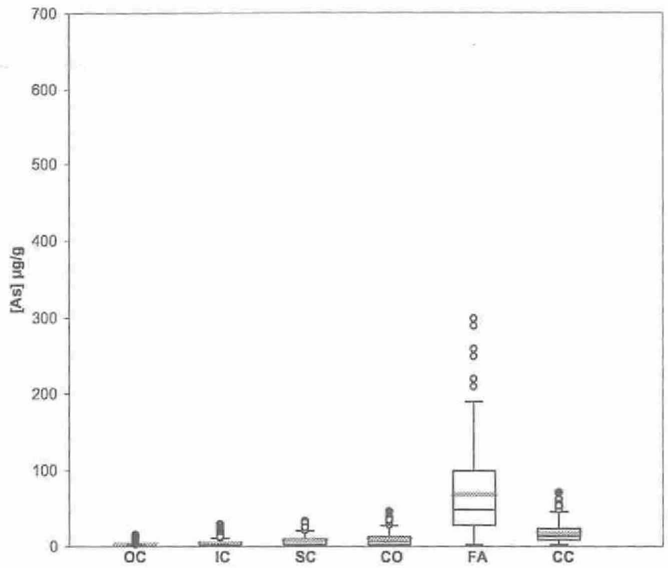


Figure 10.3.5.3: Arsenic, 0 to 5 cm, by Communities

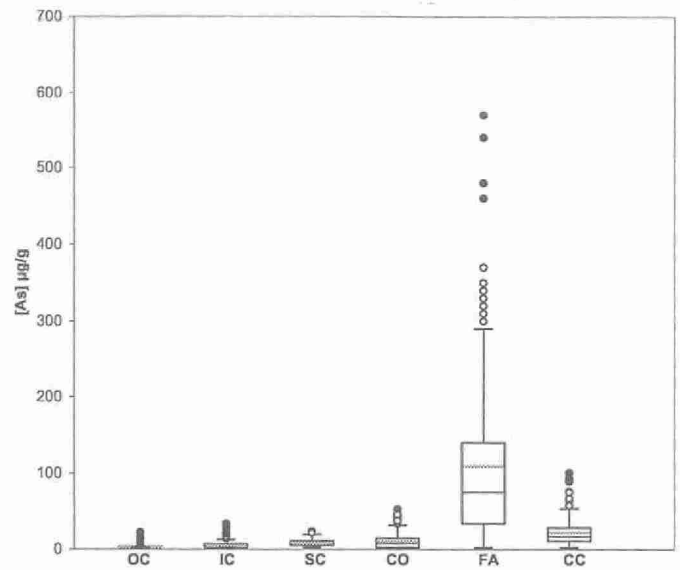


Figure 10.3.5.3b: Arsenic, 5 to 10 cm, by Communities

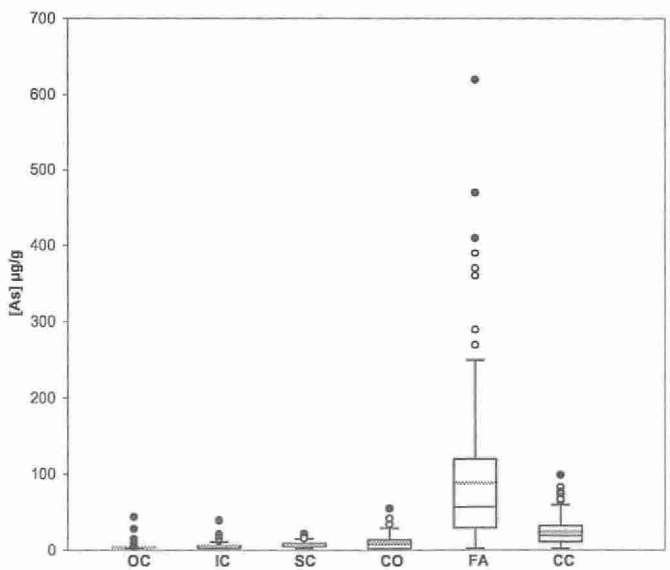


Figure 10.3.5.3c: Arsenic, 10 to 20 cm, by Communities

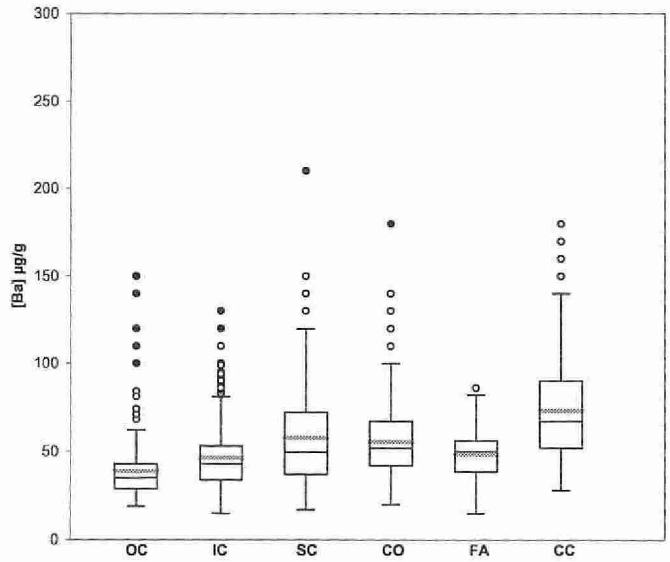


Figure 10.3.5.4: Barium, 0 to 5 cm, by Communities

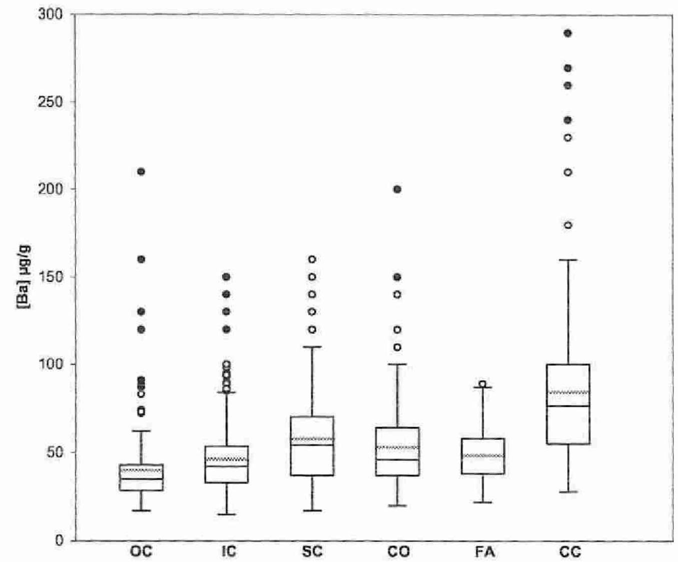


Figure 10.3.5.4b: Barium, 5 to 10 cm, by Communities

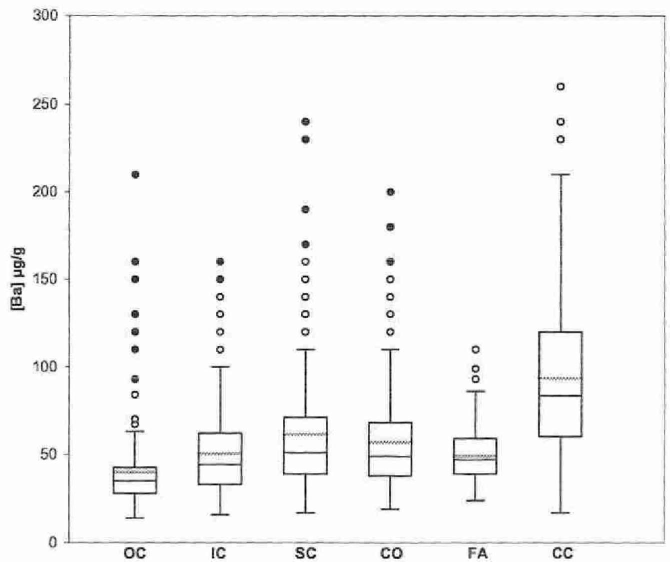


Figure 10.3.5.4c: Barium, 10 to 20 cm, by Communities

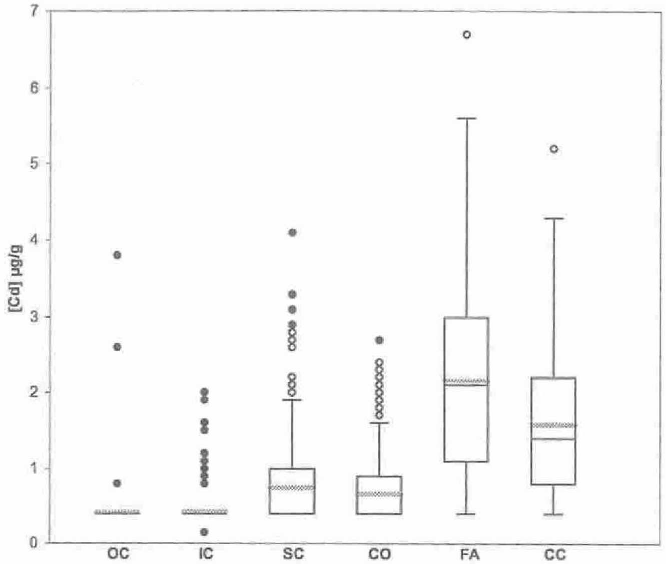


Figure 10.3.5.5: Cadmium, 0 to 5 cm, by Communities

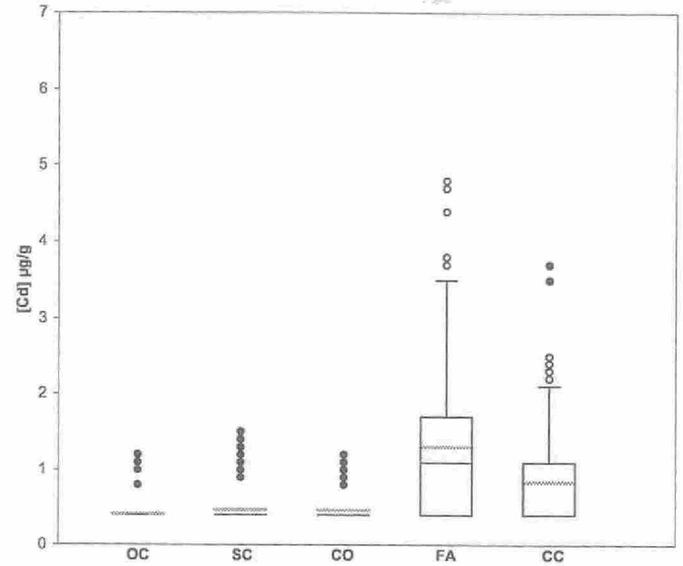


Figure 10.3.5.5b: Cadmium, 5 to 10 cm, by Communities

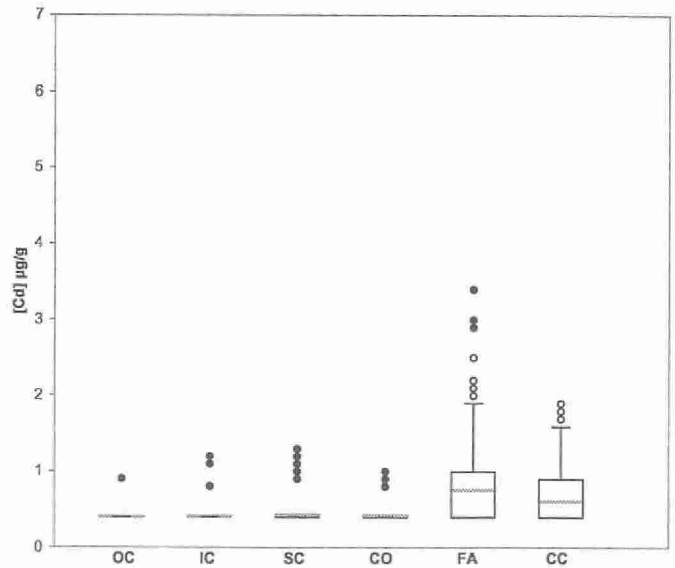


Figure 10.3.5.5c: Cadmium, 10 to 20 cm, by Communities

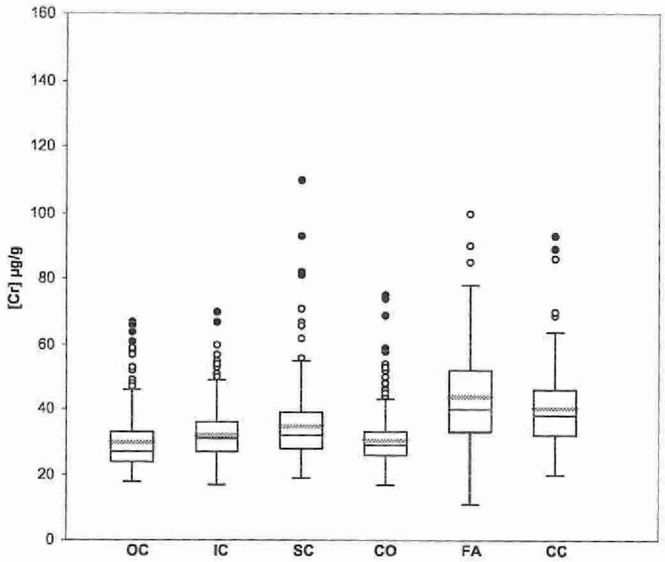


Figure 10.3.5.6: Chromium, 0 to 5 cm, by Communities

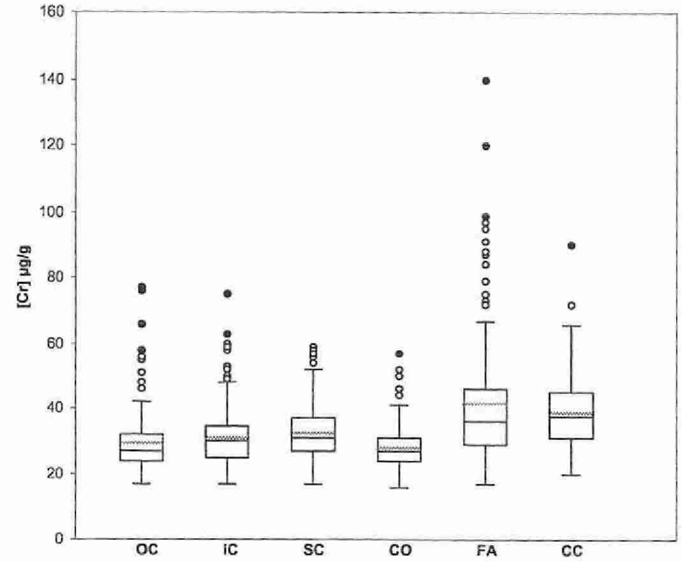


Figure 10.3.5.6b: Chromium, 5 to 10 cm, by Communities

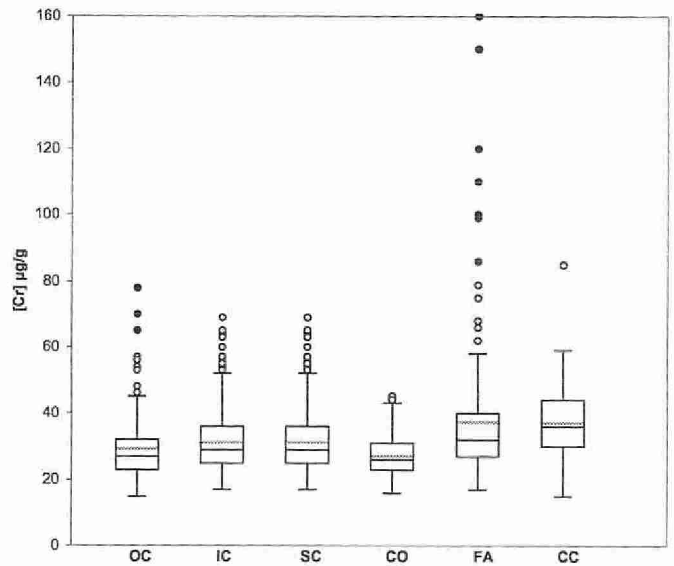


Figure 10.3.5.6c: Chromium, 10 to 20 cm, by Communities

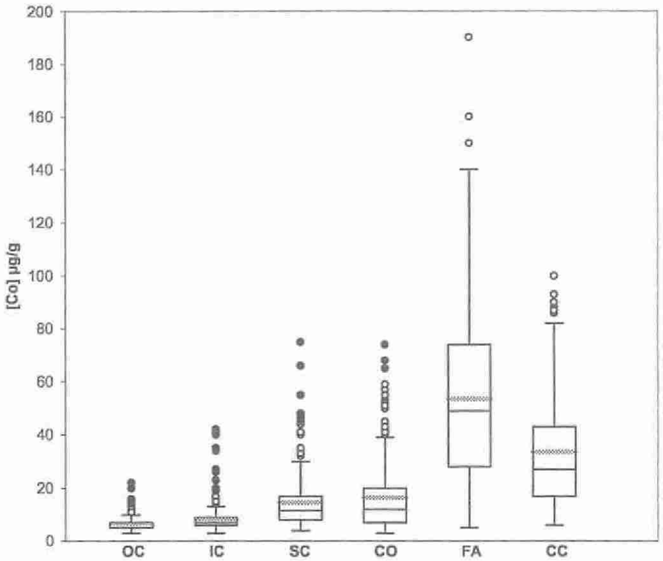


Figure 10.3.5.7: Cobalt, 0 to 5 cm, by Communities

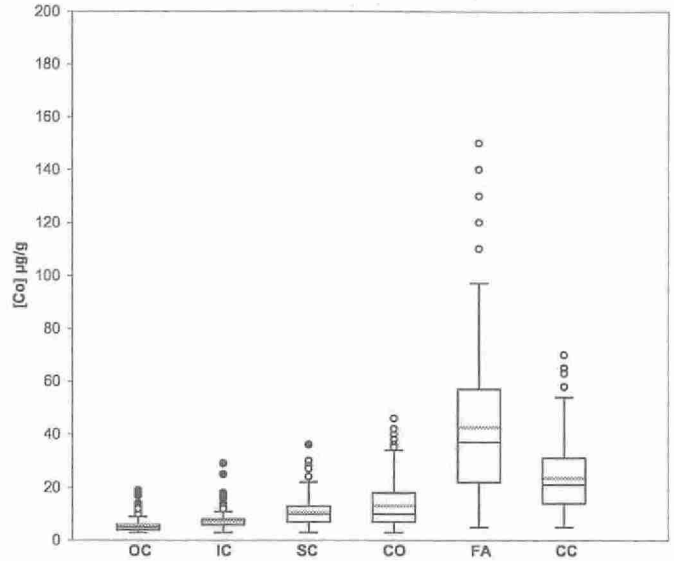


Figure 10.3.5.7b: Cobalt, 5 to 10 cm, by Communities

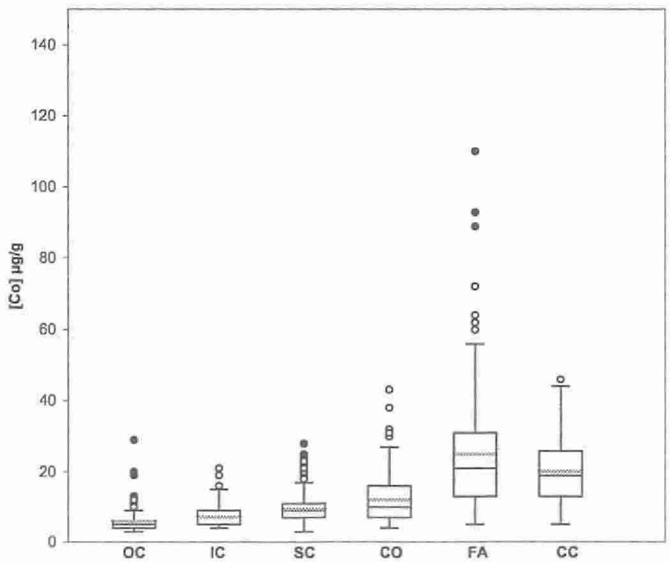


Figure 10.3.5.7c: Cobalt, 10 to 20 cm, by Communities

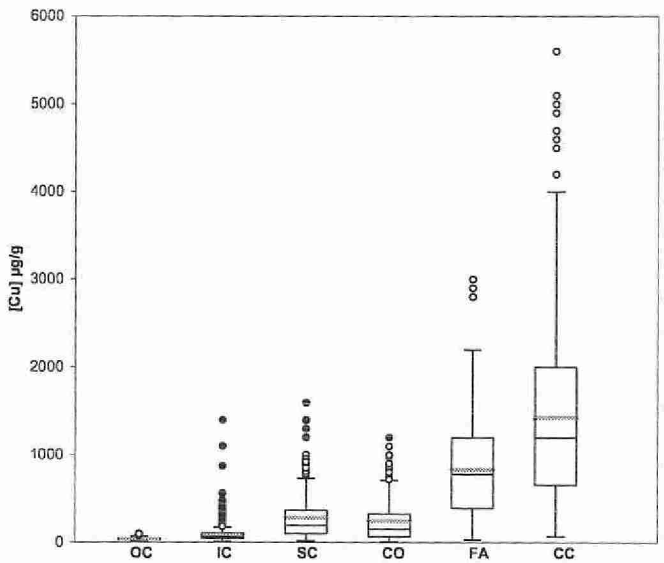


Figure 10.3.5.8: Copper, 0 to 5 cm, by Communities

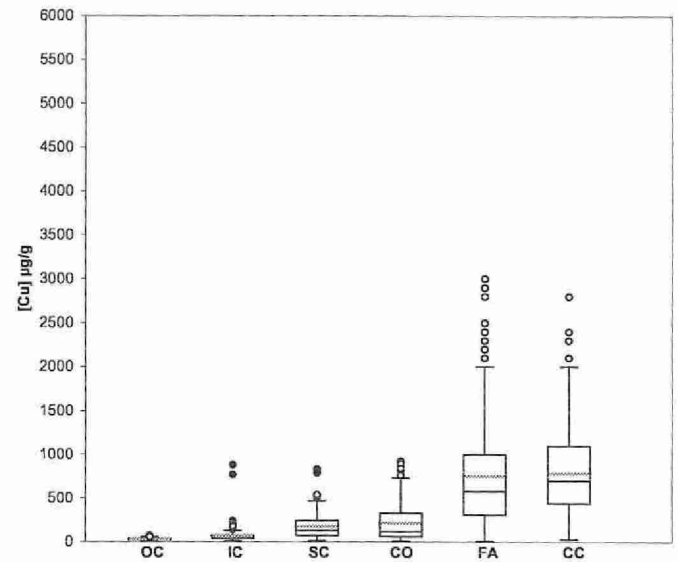


Figure 10.3.5.8b: Copper, 5 to 10 cm, by Communities

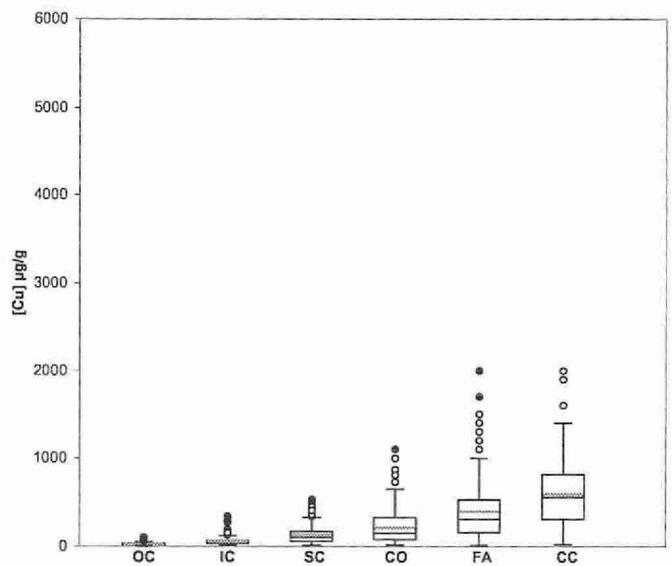


Figure 10.3.5.8c: Copper, 10 to 20 cm, by Communities

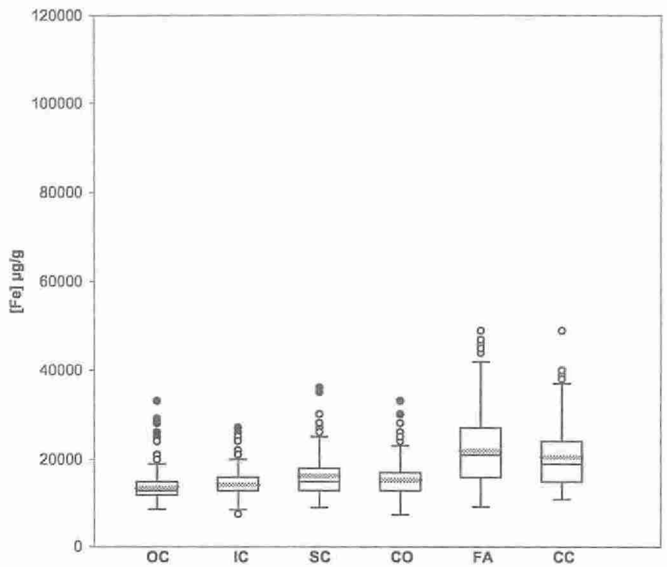


Figure 10.3.5.9: Iron, 0 to 5 cm, by Communities

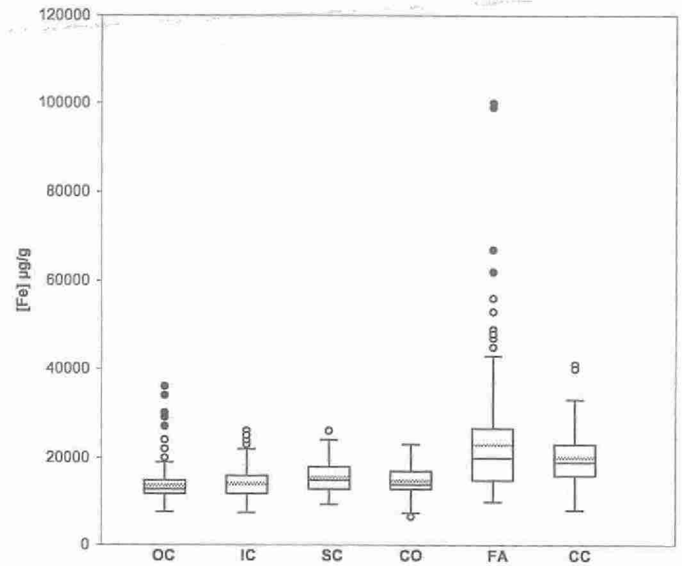


Figure 10.3.5.9b: Iron, 5 to 10 cm, by Communities

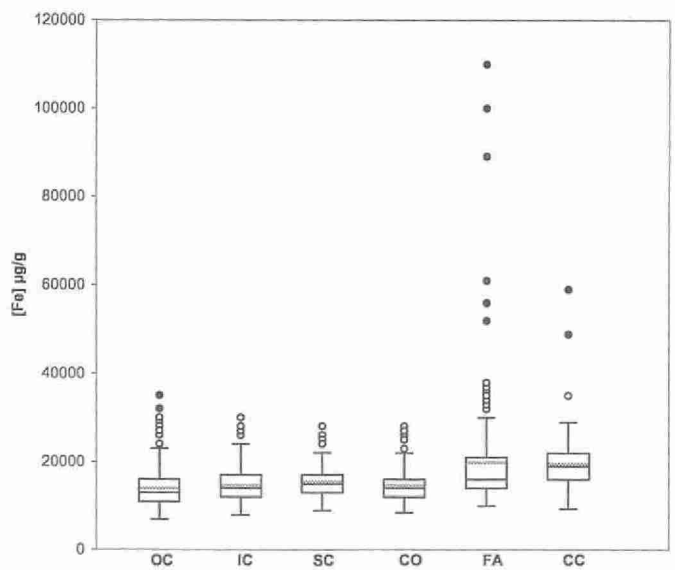


Figure 10.3.5.9c: Iron, 10 to 20 cm, by Communities

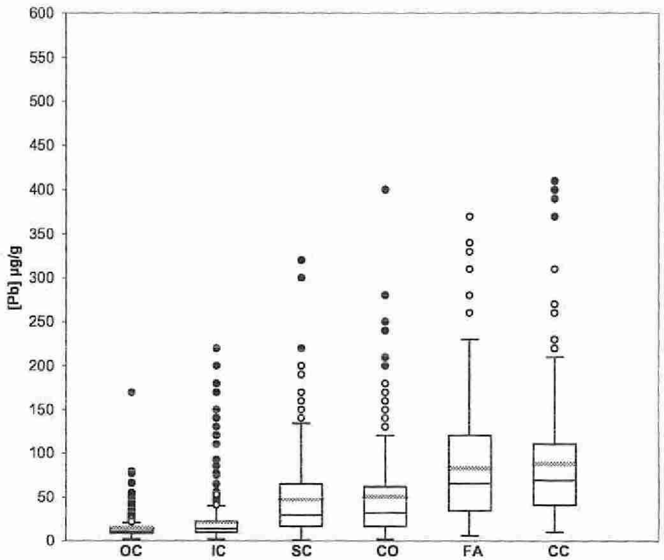


Figure 10.3.5.10: Lead, 0 to 5 cm, by Communities

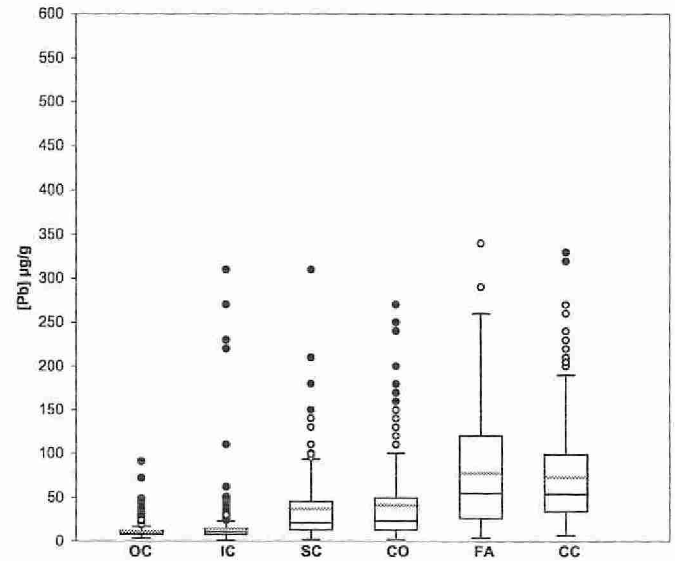


Figure 10.3.5.10b: Lead, 5 to 10 cm, by Communities

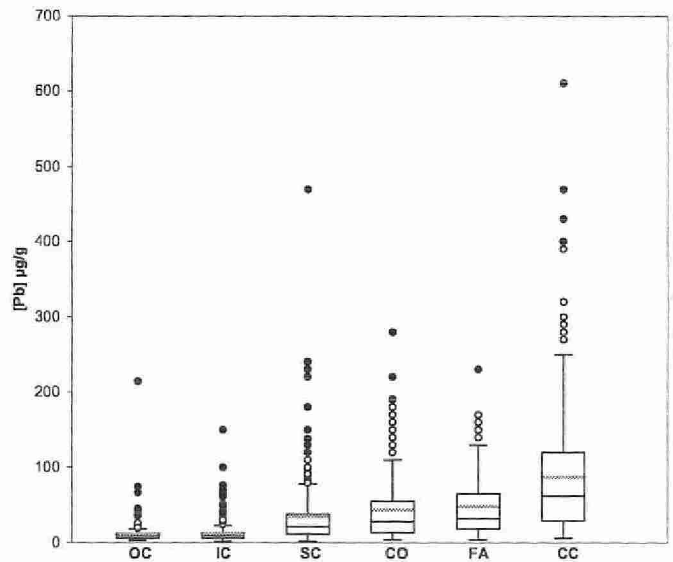


Figure 10.3.5.10c: Lead, 10 to 20 cm, by Communities

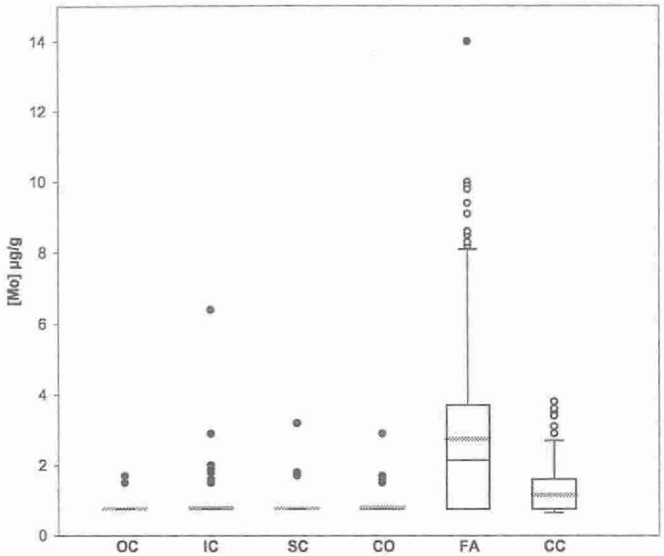


Figure 10.3.5.11: Molybdenum, 0 to 5 cm, by Communities

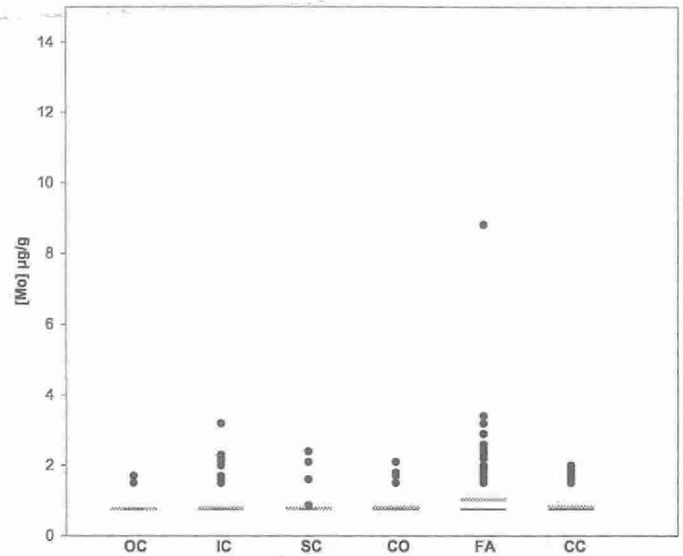


Figure 10.3.5.11b: Molybdenum, 5 to 10 cm, by Communities

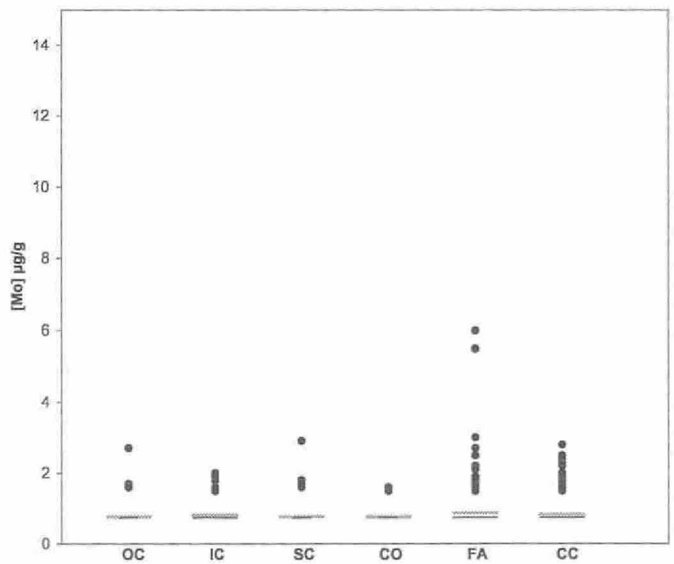


Figure 10.3.5.11c: Molybdenum, 10 to 20cm, by Communities

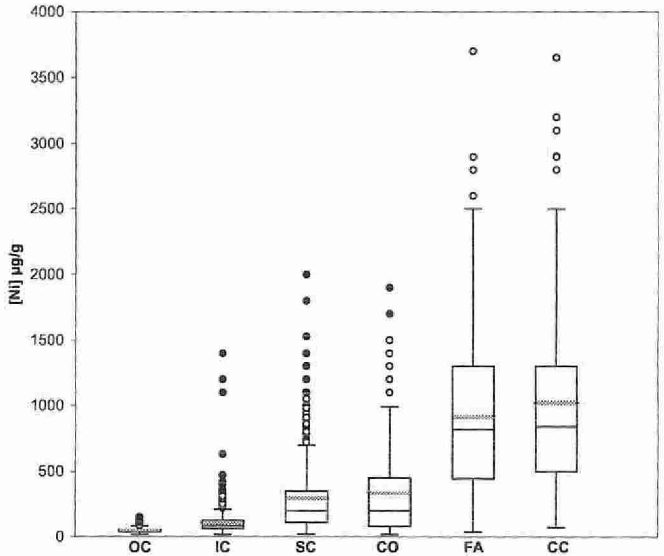


Figure 10.3.5.12: Nickel, 0 to 5 cm, by Communities

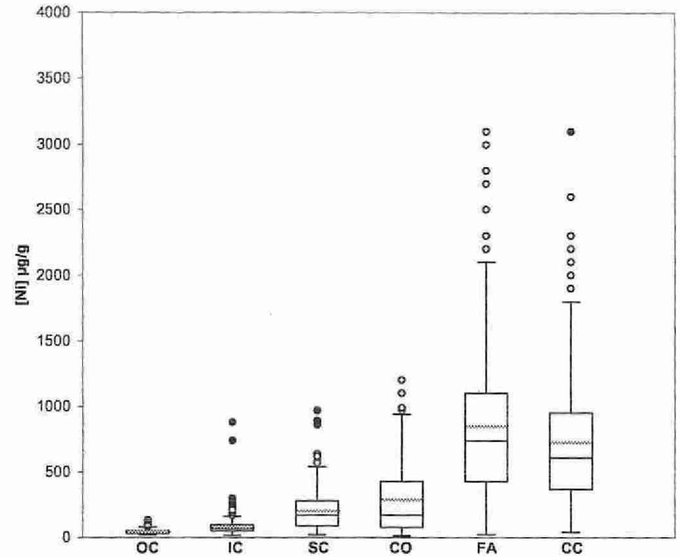


Figure 10.3.5.12b: Nickel, 5 to 10 cm, by Communities

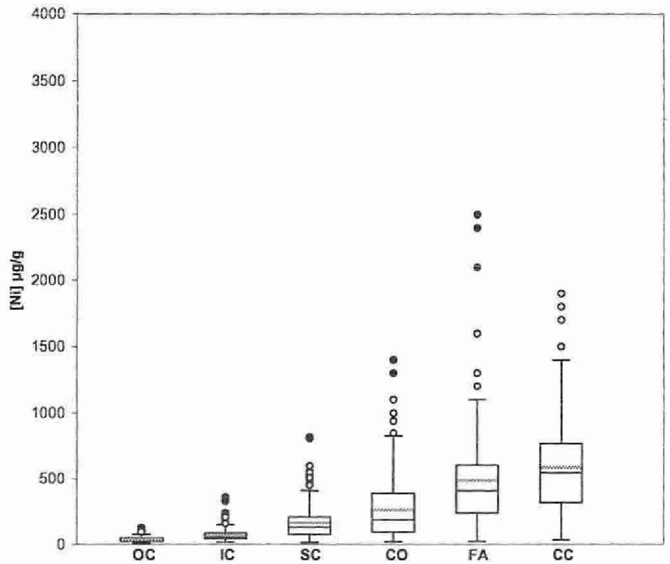


Figure 10.3.5.12c: Nickel, 10 to 20 cm, by Communities

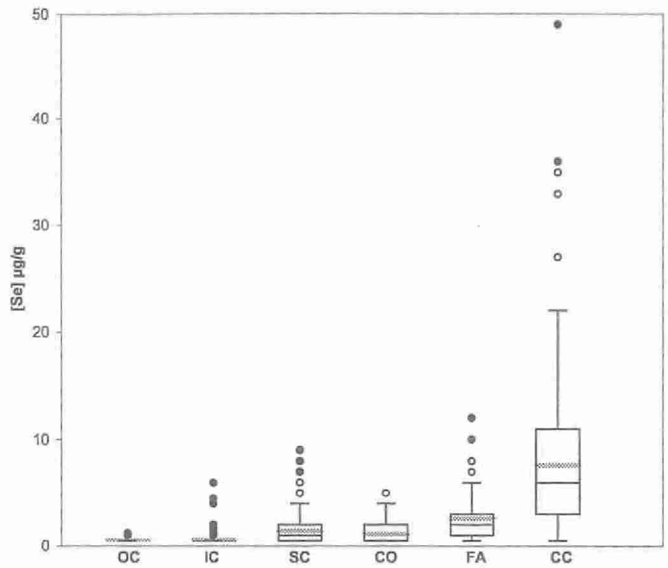


Figure 10.3.5.13: Selenium, 0 to 5 cm, by Communities

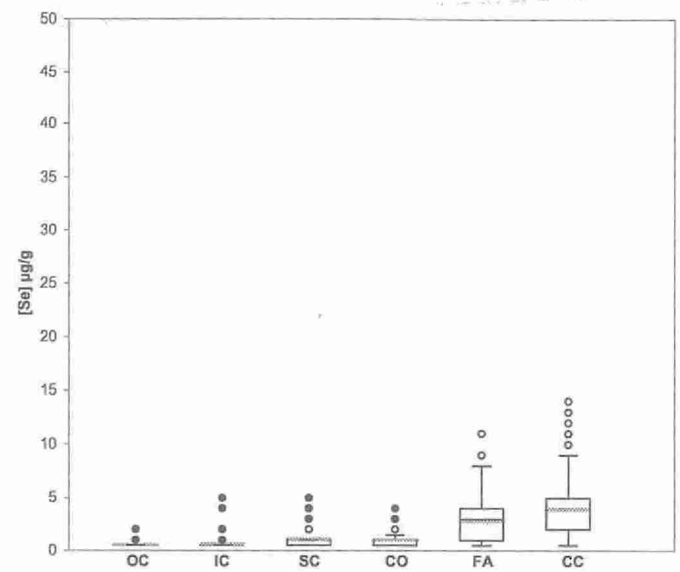


Figure 10.3.5.13b: Selenium, 5 to 10 cm, by Communities

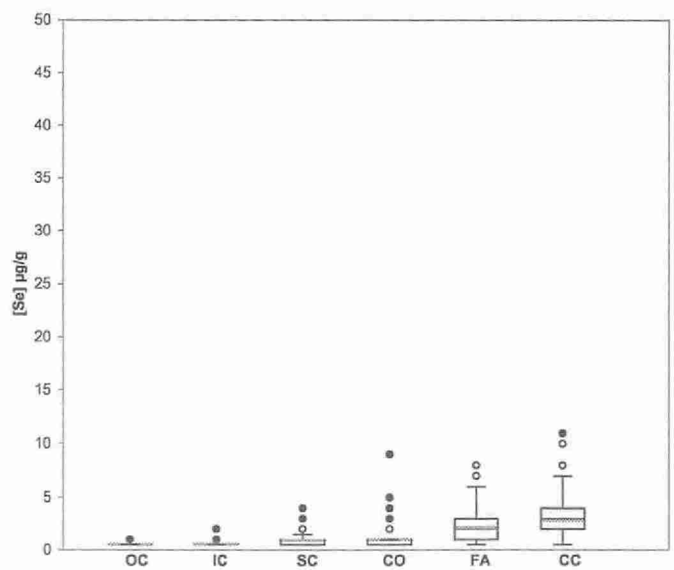


Figure 10.3.5.13c: Selenium, 10 to 20 cm, by Communities

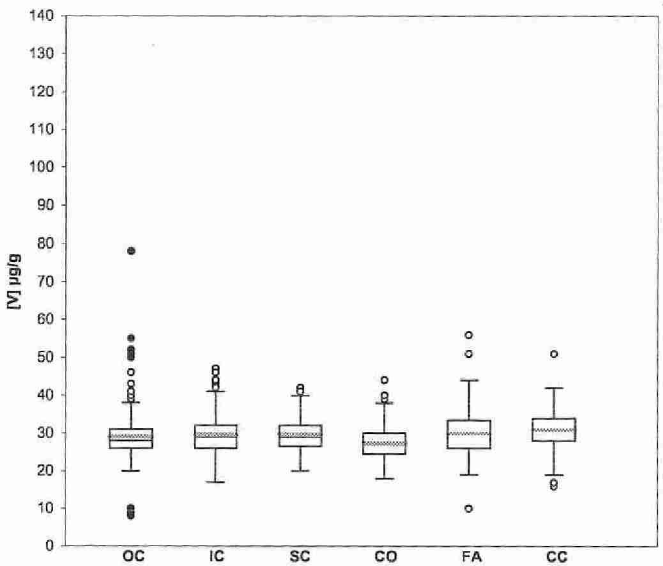


Figure 10.3.5.14: Vanadium, 0 to 5 cm, by Communities

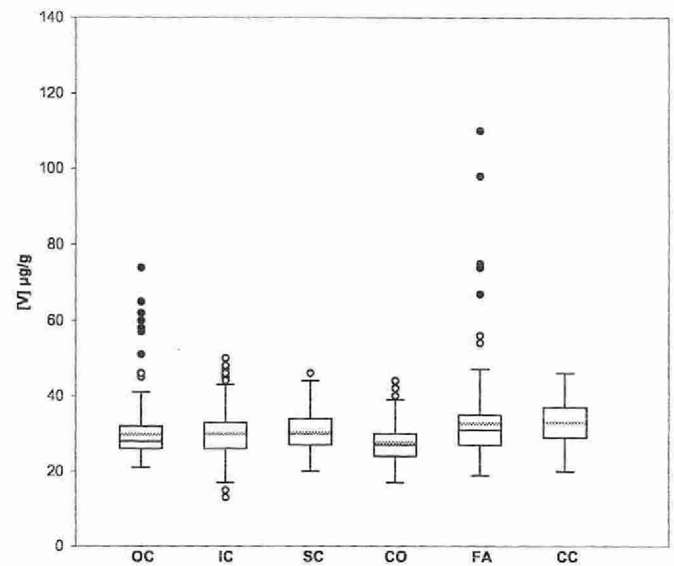


Figure 10.3.5.14b: Vanadium, 5 to 10 cm, by Communities

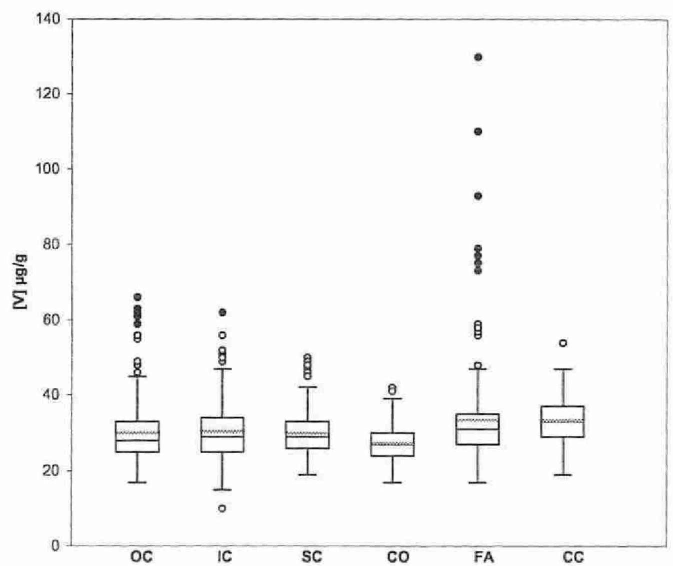


Figure 10.3.5.14c: Vanadium, 10 to 20 cm, by Communities

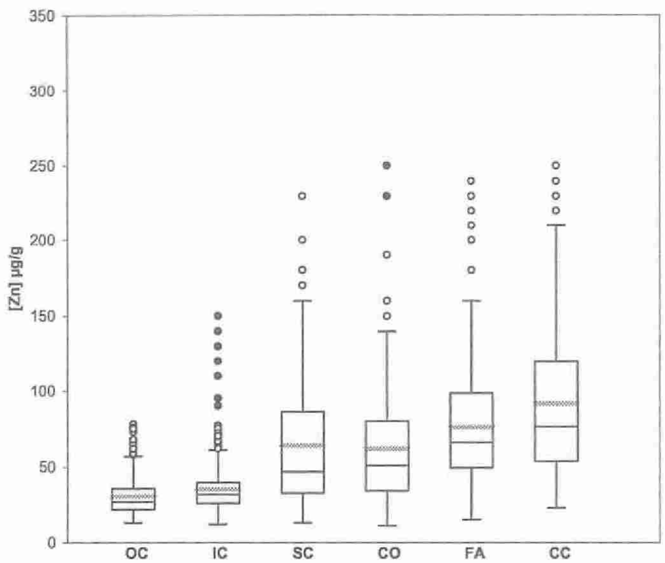


Figure 10.3.5.15: Zinc, 0 to 5 cm, by Communities

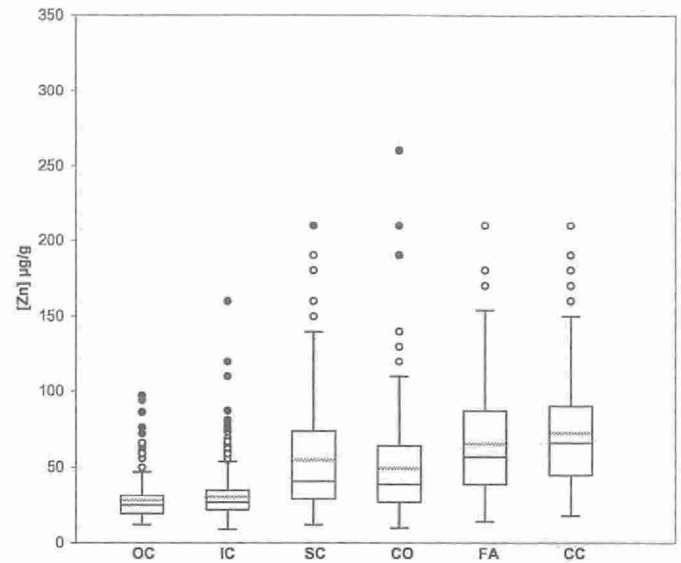


Figure 10.3.5.15b: Zinc, 5 to 10 cm, by Communities

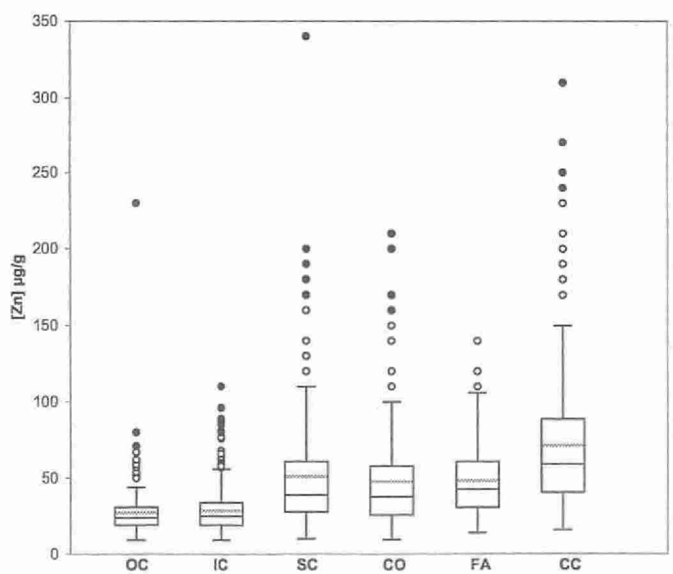


Figure 10.3.5.15c: Zinc, 10 to 20 cm, by Communities

10.3.6 pH, Electrical Conductivity and Total Organic Carbon Summaries

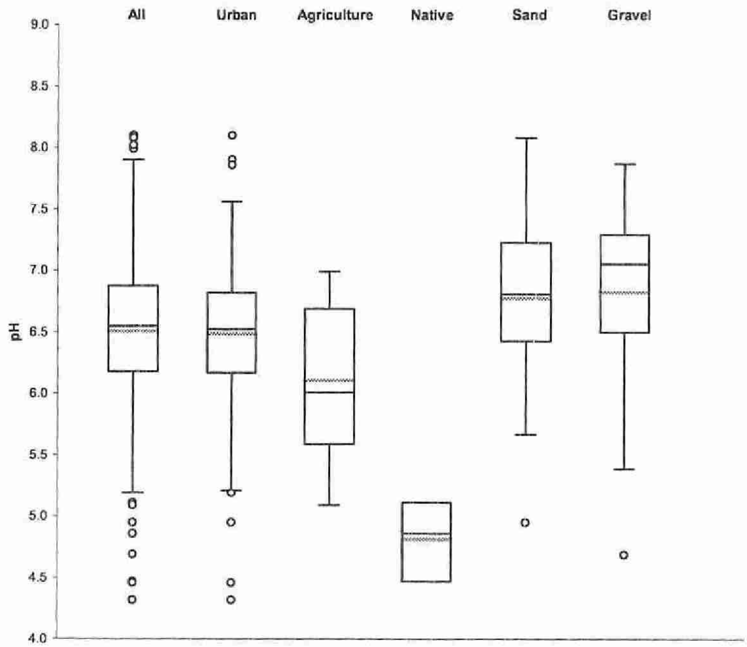


Figure 10.3.6.1: Box and Whisker Plots of Soil pH by sample type.

Table 10.3.6.1: Summary Statistics of pH in Soil by Sample Type

	All	Urban	Agriculture	Native	Sand	Gravel
Minimum	4.3	4.3	5.1	4.5	5.0	4.7
10th	5.7	5.7			5.9	5.9
1st quartile	6.2	6.2	5.6		6.4	6.5
Median	6.6	6.5	6.0	4.9	6.8	7.1
3rd quartile	6.9	6.8	6.7		7.2	7.3
95th	7.4	7.4			7.9	7.6
Maximum	8.1	8.1	7.0	5.1	8.1	7.9
Mean	6.5	6.5	6.1	4.8	6.8	6.8
Geometric mean	6.5	6.5	6.1		6.7	6.8
Sample std. dev.	0.6	0.5	0.6		0.7	0.8
CV (std. dev./mean)	9%	8%	11%		10%	12%
Lower CI of the mean	6.5	6.4	5.5		6.6	6.4
Upper CI of the mean	6.6	6.5	6.7		7.0	7.2
Kurtosis	0.7	0.6	-1.2		0.3	2.2
Skewness	-0.4	-0.4	-0.2		-0.2	-1.5
N	545	472	7	3	45	18

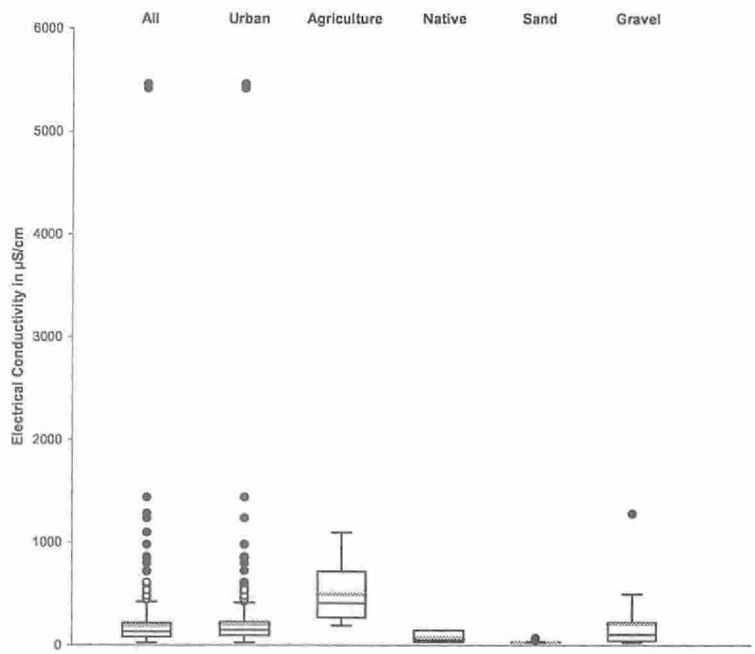


Figure 10.3.6.2: Box and Whisker Plots of Soil EC by Sample Type.

Table 10.3.6.2: Summary Statistics of Electrical Conductivity in Soil by Sample Type.

	All	Urban	Agriculture	Native	Sand	Gravel
Minimum	25	25	191	31	25	25
10th	41	63			25	25
1st quartile	83	96	270		25	42
Median	133	149	411	48	25	105
3rd quartile	221	225	717		29	224
95th	445	442			53	615
Maximum	5460	5460	1100	146	71	1282
Mean	196	207	493	75	30	209
Geometric mean	130	149	419		29	112
Sample std. dev.	358	373	295		11	288
CV (std. dev./mean)	183%	180%	65%		36%	142%
Lower CI of the mean	165	173	198		27	62
Upper CI of the mean	226	241	788		33	356
Kurtosis	169	163	1.4		7.1	11
Skewness	12	12	1.3		2.7	3.1
N	545	472	7	3	45	18

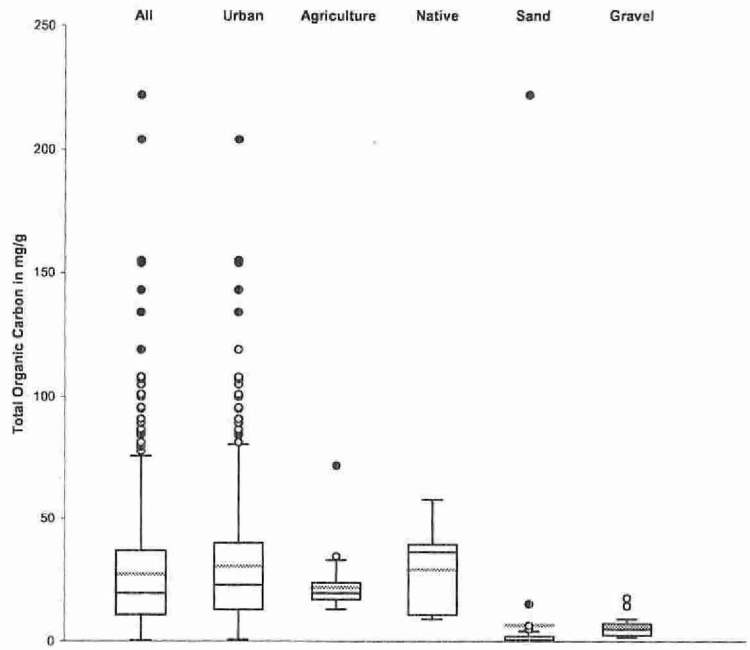


Figure 10.3.6.3: Box and Whisker Plots of Soil TOC by Sample Type.

Table 10.3.6.3: Summary Statistics of Total Organic Carbon in Soil by Sample Type.

	All	Urban	Agriculture	Native	Sand	Gravel
Minimum	0.5	0.6	13	9.0	0.5	1.6
10th	4.5	7.9			0.5	2.0
1st quartile	11	13	17		0.5	2.5
Median	20	23	20	36	0.7	5.0
3rd quartile	37	40	24		2.0	7.2
95th	79	84			6.1	15
Maximum	222	204	72	58	222	18
Mean	27	31	22	29	6.6	6.0
Geometric mean	17	22	21		1.2	4.8
Sample std. dev.	26	26	9.9		32.6	4.2
CV (std. dev./mean)	96%	85%	45%		497%	73%
Lower CI of the mean	25	28	19		-3.3	3.8
Upper CI of the mean	30	33	25		17	8.3
Kurtosis	10.8	7.2	16.3		44.5	2.5
Skewness	2.6	2.2	3.5		6.7	1.6
N	584	477	38	7	45	17

10.4

10.4 Correlation Graphs for Selected Metals and Arsenic in Soil in the City of Greater Sudbury

10.4.1 Outer Sudbury Communities (Outer Com.)

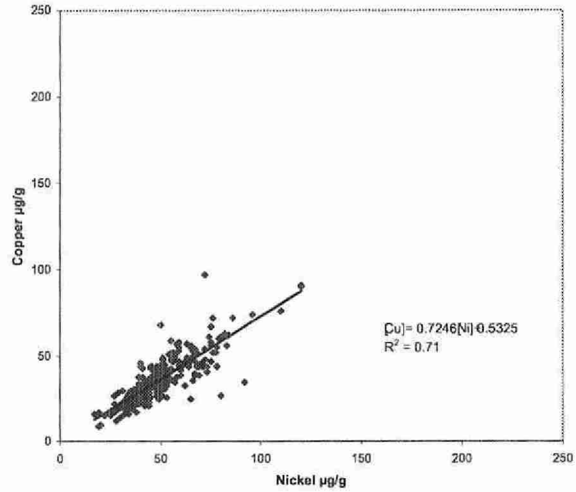


Fig. 10.4.1.1: Cu vs. Ni, 0-5 cm, Outer Com.

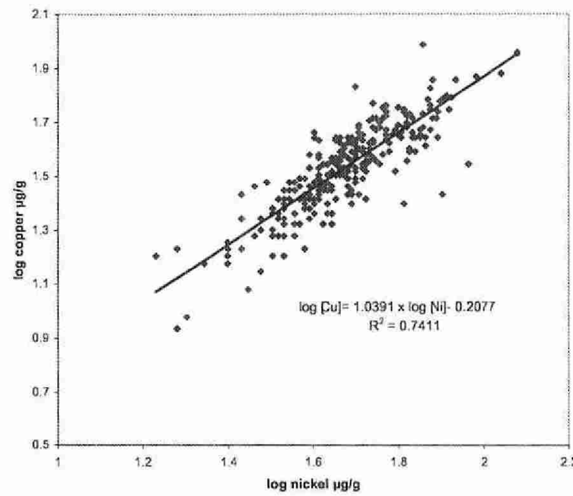


Fig. 10.4.1.1b: log Cu vs. log Ni, 0-5 cm, Outer Com.

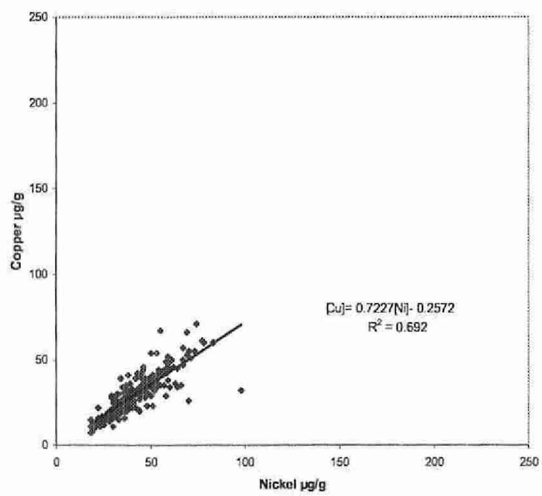


Fig. 10.4.1.2: Cu vs. Ni, 5-10 cm, Outer Com.

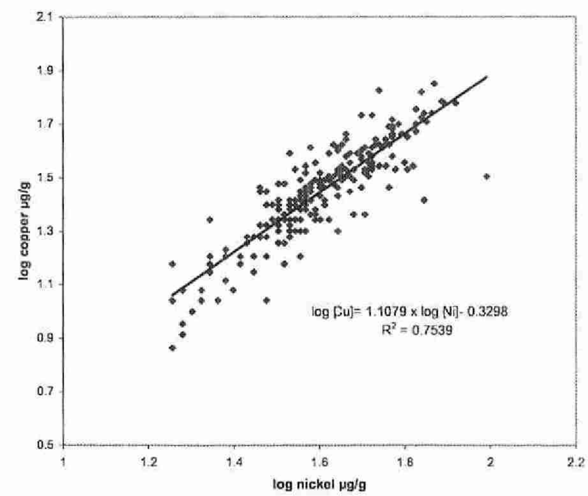


Fig. 10.4.1.2b: log Cu vs. log Ni, 5-10 cm, Outer Com.

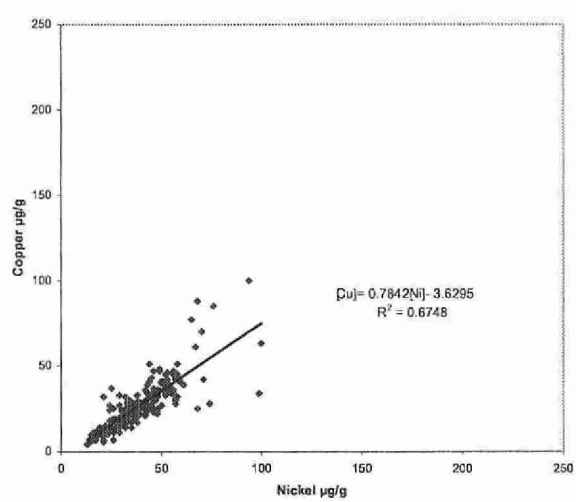


Fig. 10.4.1.3: Cu vs. Ni, 10-20 cm, Outer Com.

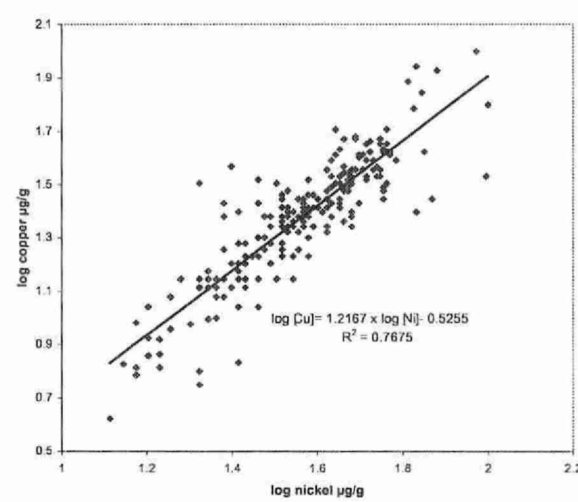


Fig. 10.4.1.3b: log Cu vs. log Ni, 10-20 cm, Outer Com.

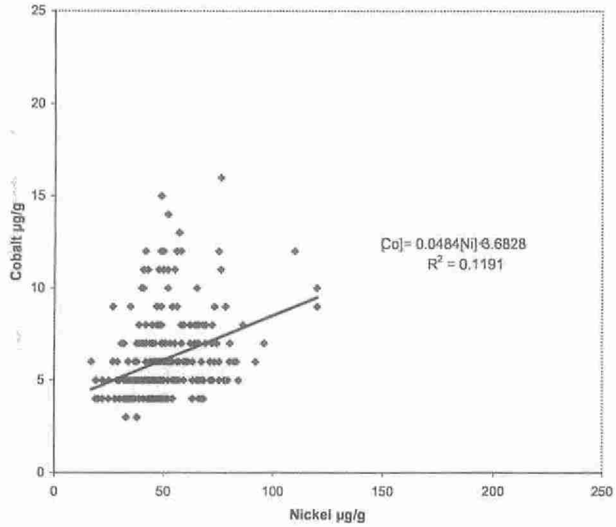


Fig 10.4.1.4: Co vs. Ni, 0-5 cm, Outer Com.

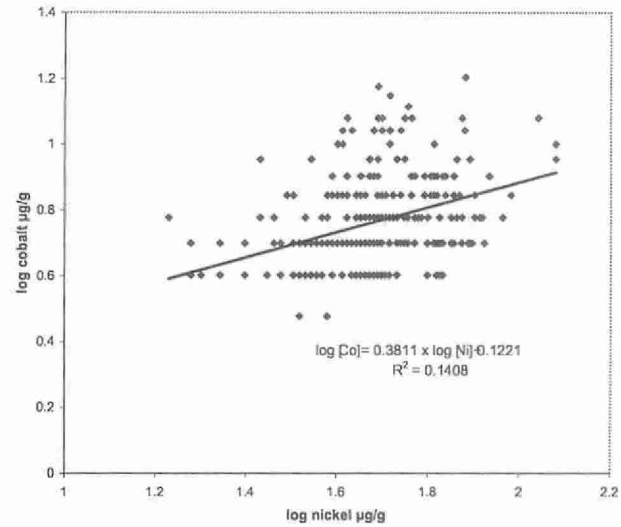


Fig. 10.4.1.4b: log Co vs. log Ni, 0-5 cm, Outer Com.

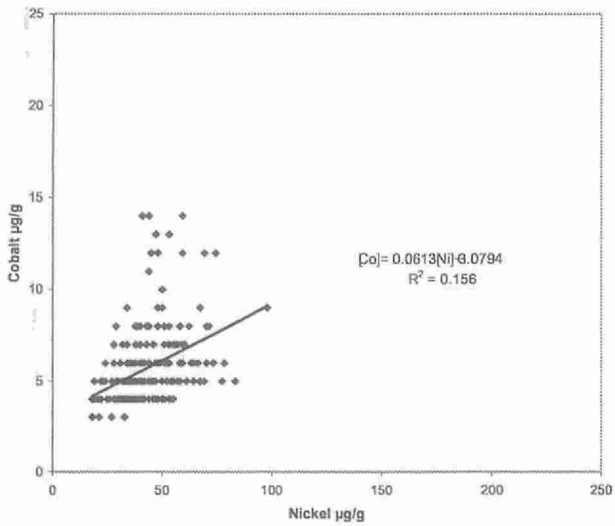


Fig 10.4.1.5: Co vs. Ni, 5-10 cm, Outer Com.

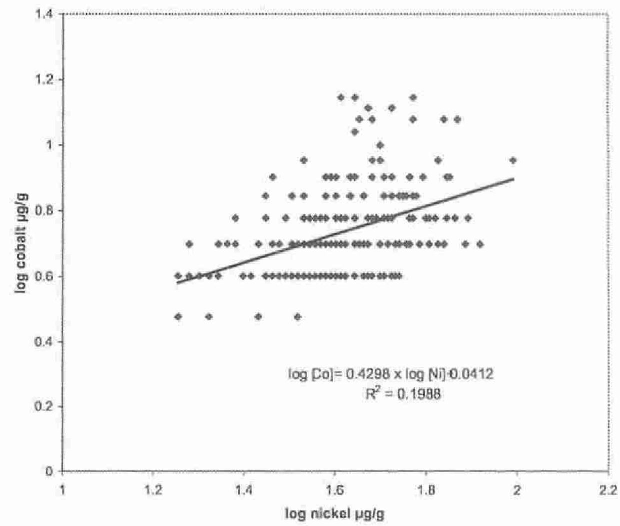


Fig. 10.4.1.5b: log Co vs. log Ni, 5-10 cm, Outer Com.

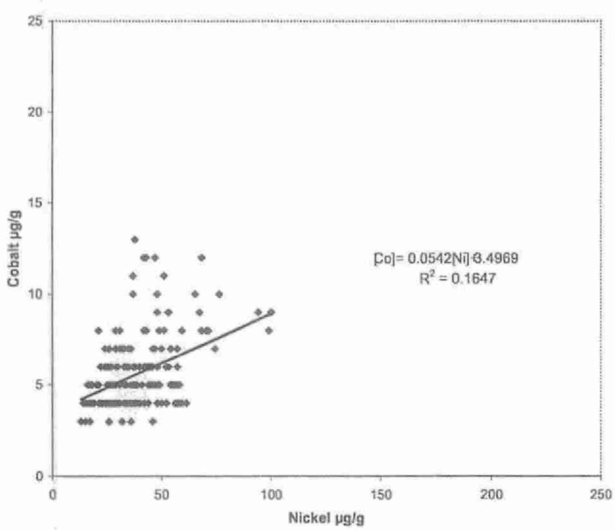


Fig. 10.4.1.6: Co vs. Ni, 10-20 cm, Outer Com.

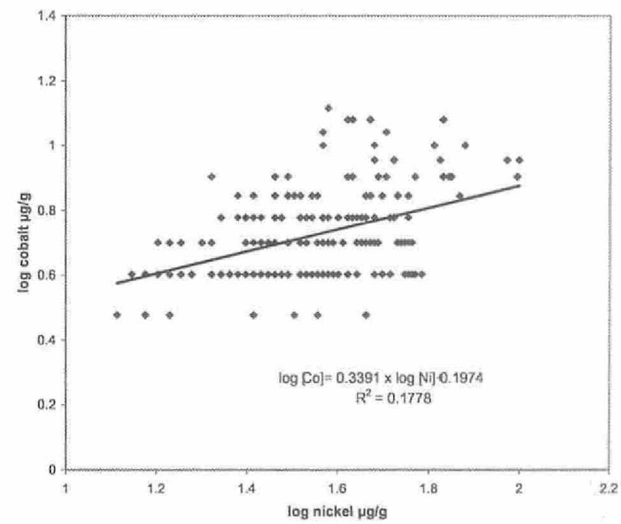


Fig. 10.4.1.6b: log Co vs. log Ni, 10-20 cm, Outer Com.

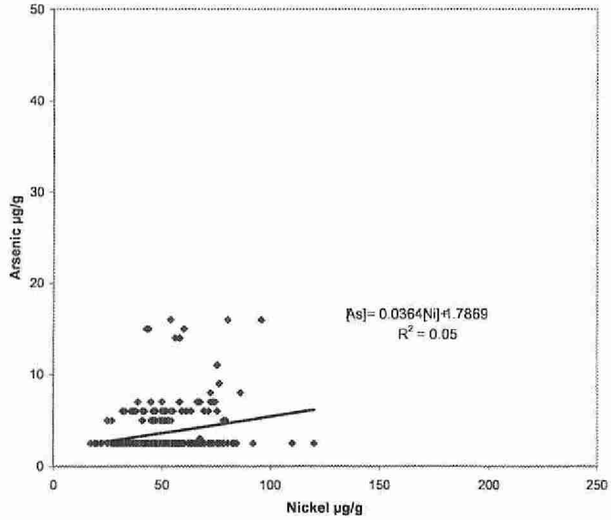


Fig. 10.4.1.7: As vs. Ni, 0-5 cm, Outer Com.

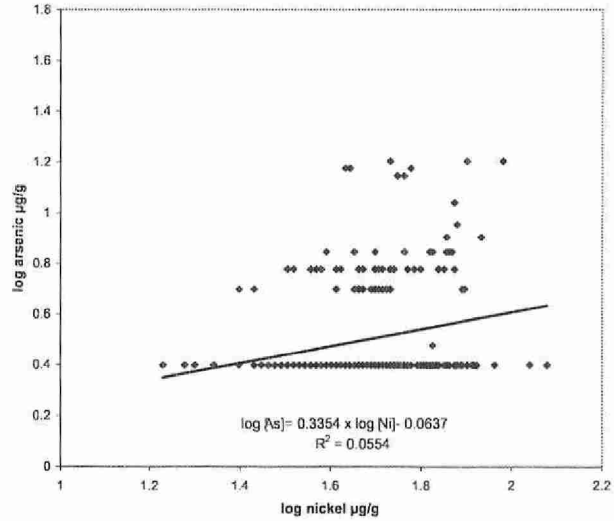


Fig. 10.4.1.7b: log As vs. log Ni, 0-5 cm, Outer Com.

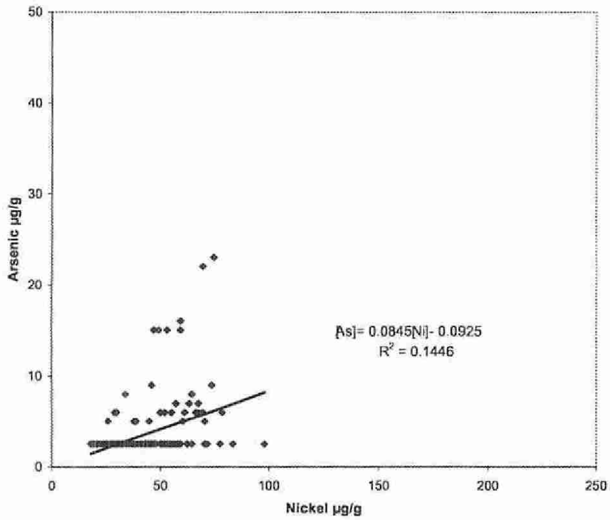


Fig. 10.4.1.8: As vs. Ni, 5-10 cm, Outer Com.

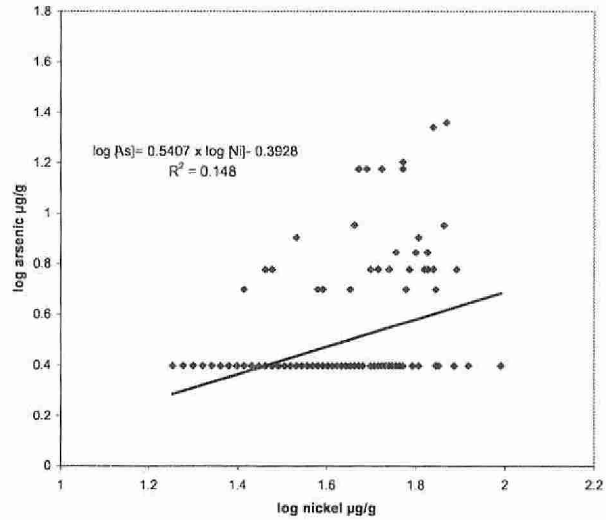


Fig 10.4.1.8b: log As vs. log Ni, 5-10 cm, Outer Com.

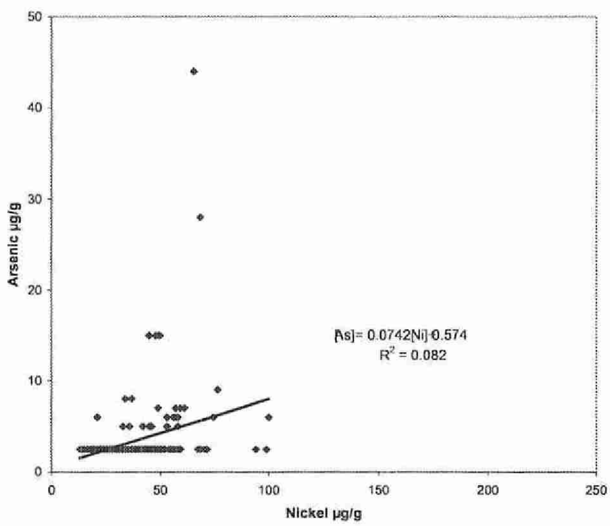


Fig. 10.4.1.9: As vs. Ni, 10-20 cm, Outer Com.

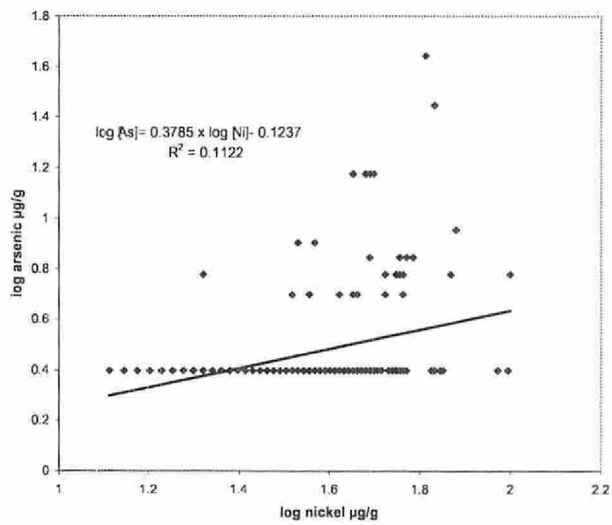


Fig. 10.4.1.9b: log As vs. log Ni, 10-20 cm, Outer Com.

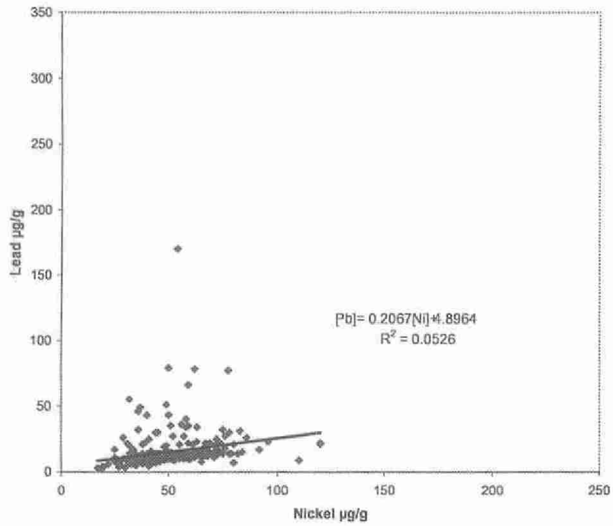


Fig. 10.4.1.10: Pb vs. Ni, 0-5 cm, Outer Com.

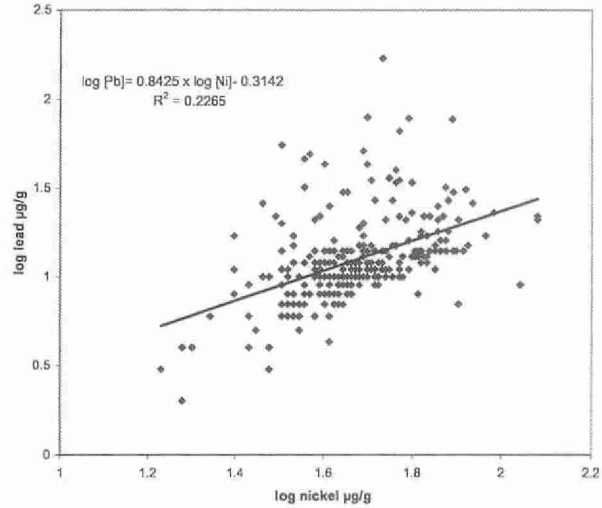


Fig. 10.4.1.10b: log Pb vs. log Ni, 0-5 cm, Outer Com.

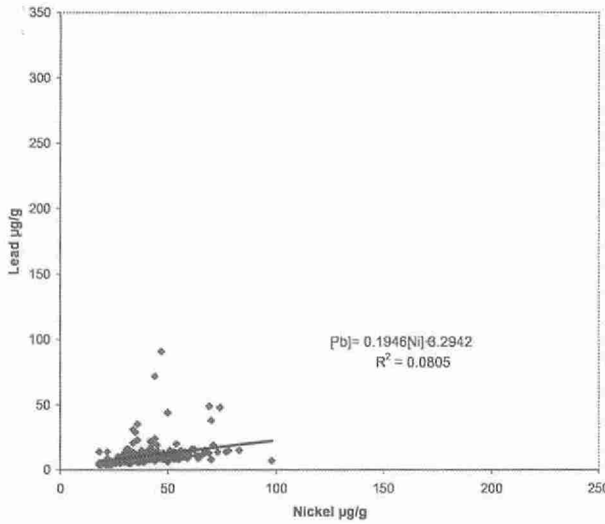


Fig. 10.4.1.11: Pb vs. Ni, 5-10 cm, Outer Com.

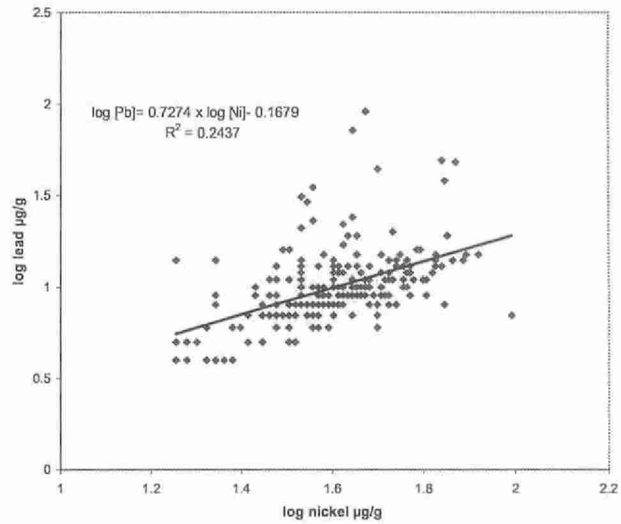


Fig. 10.4.1.11b: log Pb vs. log Ni, 5-10 cm, Outer Com.

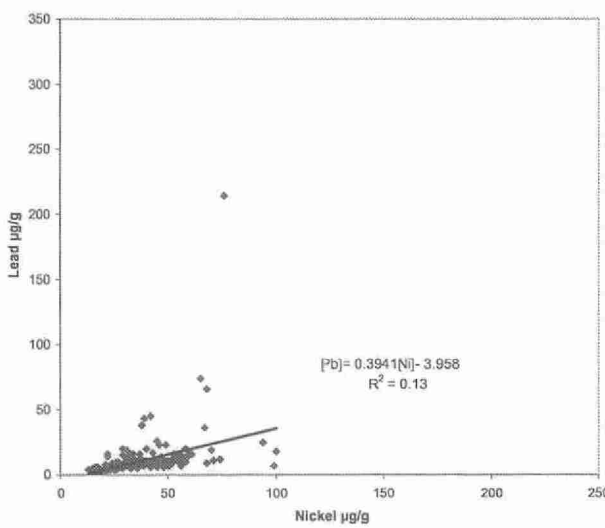


Fig. 10.4.1.12: Pb vs. Ni, 10-20 cm, Outer Com.

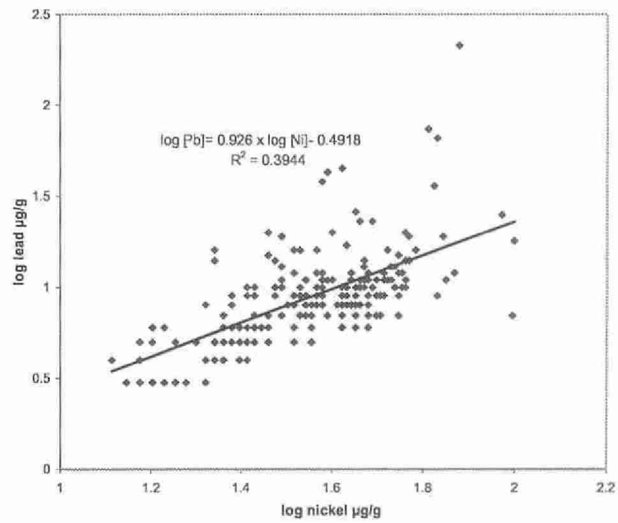


Fig. 10.4.1.12b: log Pb vs. log Ni, 10-20 cm, Outer Com.

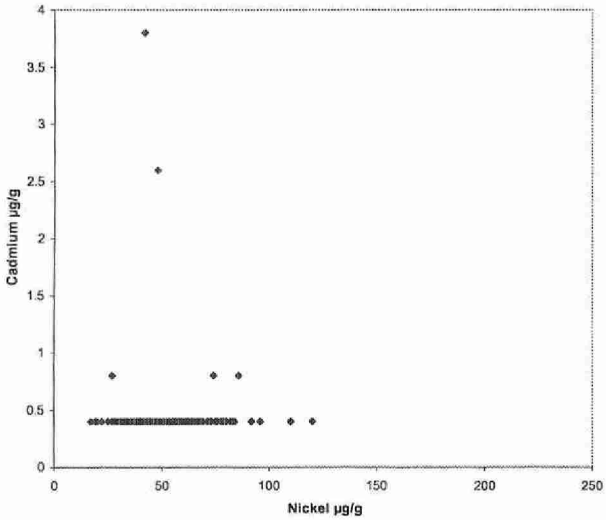


Fig. 10.4.1.13: Cd vs. Ni, 0-5 cm, Outer Com.

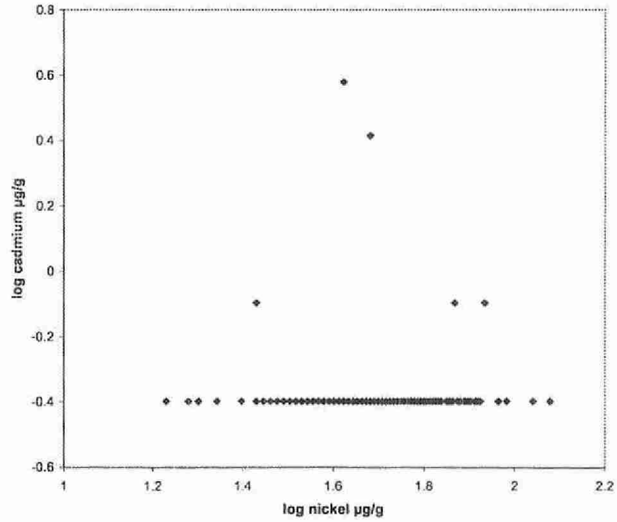


Fig. 10.4.1.13b: log Cd vs. log Ni, 0-5 cm, Outer Com.

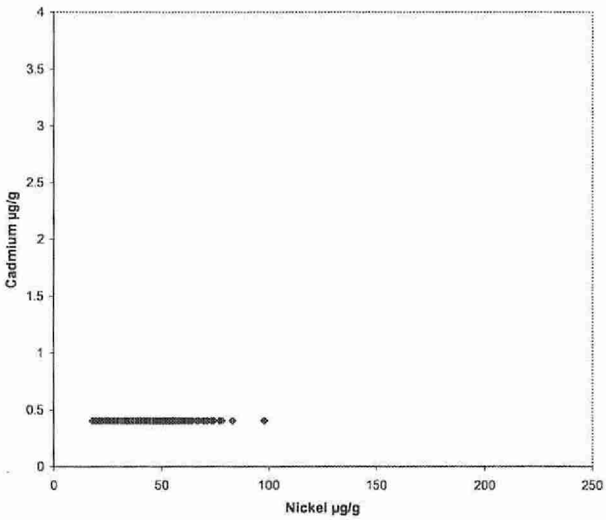


Fig. 10.4.1.14: Cd vs. Ni, 5-10 cm, Outer Com.

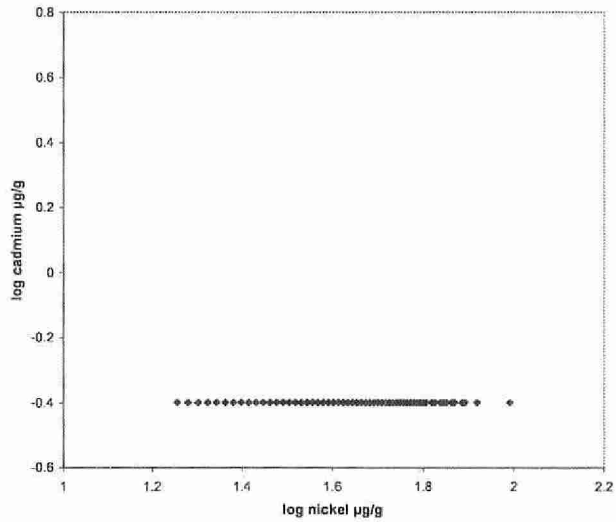


Fig. 10.4.1.14b: log Cd vs. log Ni, 5-10 cm, Outer Com.

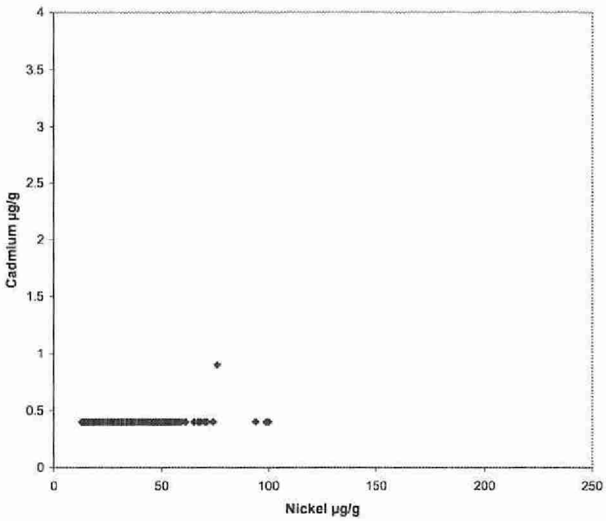


Fig. 10.4.1.15: Cd vs. Ni, 10-20 cm, Outer Com.

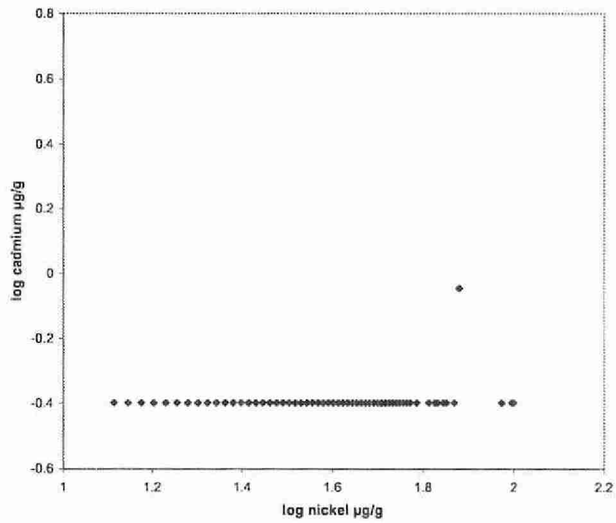


Fig. 10.4.1.15b: log Cd vs. log Ni, 10-20 cm, Outer Com.

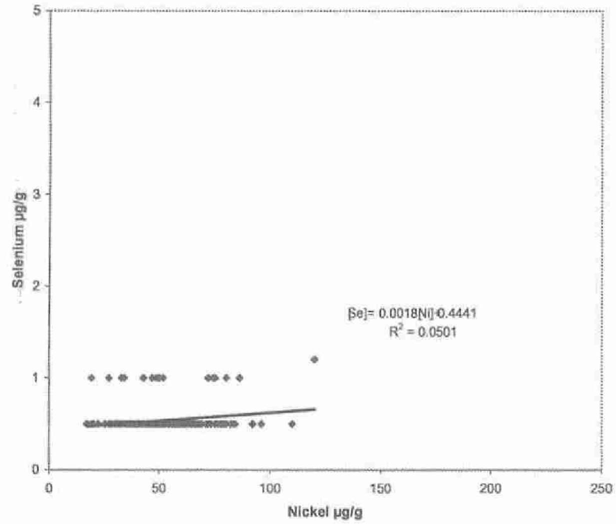


Fig. 10.4.1.16: Se vs. Ni, 0-5 cm, Outer Com.

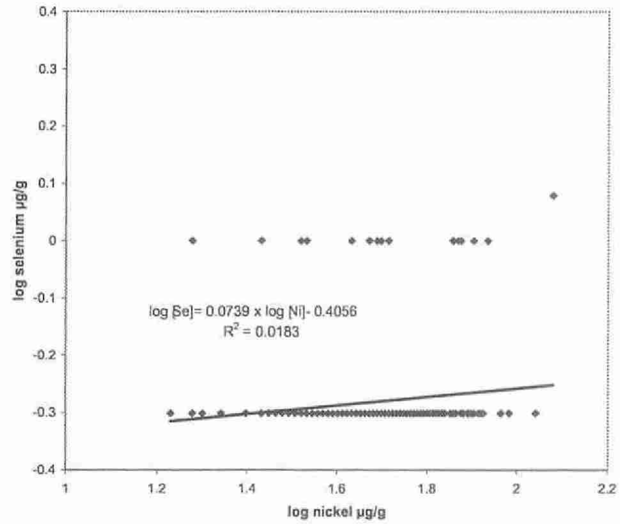


Fig. 10.4.1.16b: log Se vs. log Ni, 0-5 cm, Outer Com.

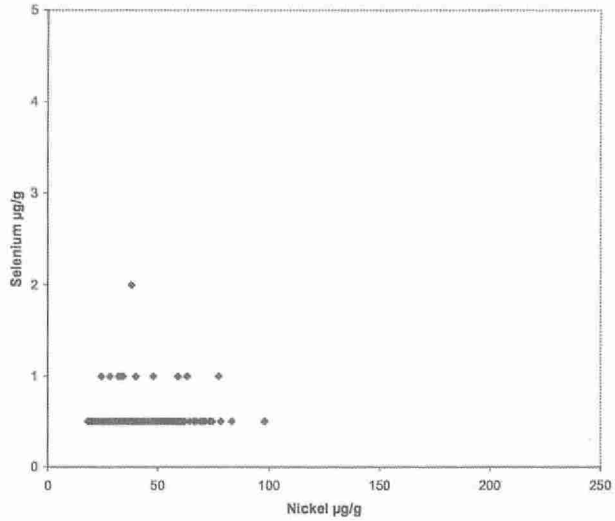


Fig. 10.4.1.17: Se vs. Ni, 5-10 cm, Outer Com.

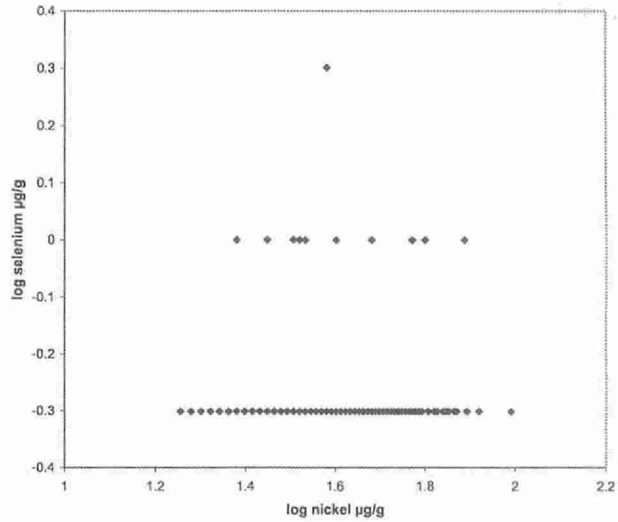


Fig 10.1.4.17b: log Se vs. log Ni, 5-10 cm, Outer Com.

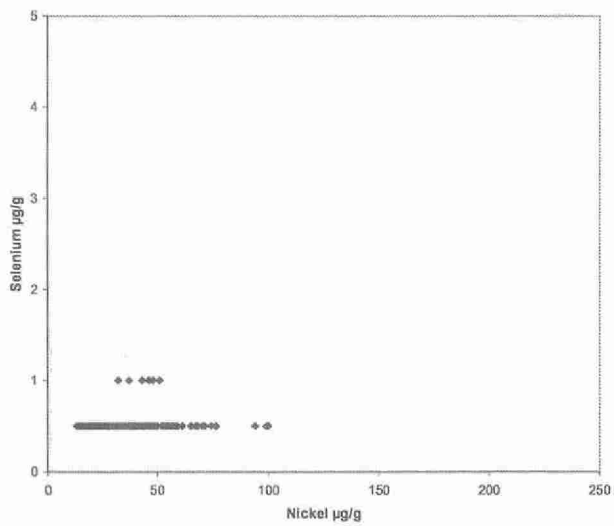


Fig. 10.4.1.18: Se vs. Ni, 10-20 cm, Outer Com.

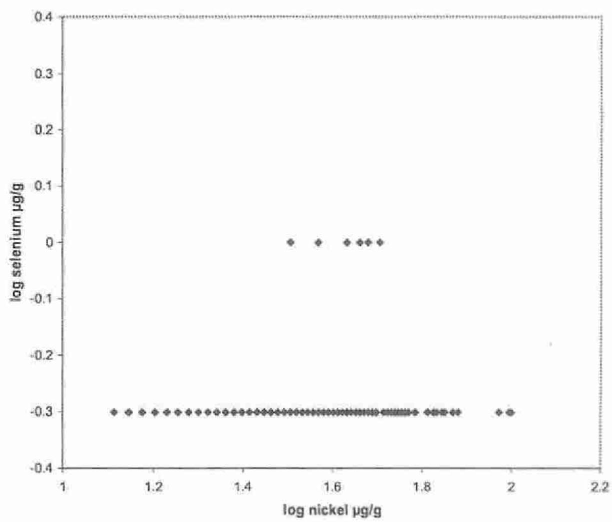


Fig. 10.4.1.18b: log Se vs. log Ni, 10-20 cm, Outer Com.

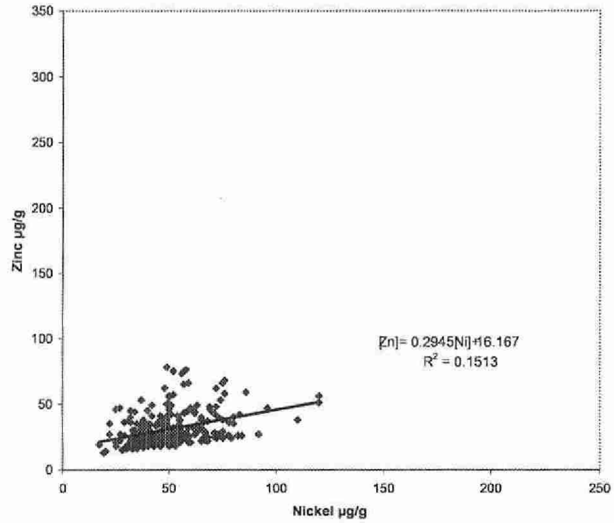


Fig. 10.4.1.19: Zn vs. Ni, 0-5 cm, Outer Com.

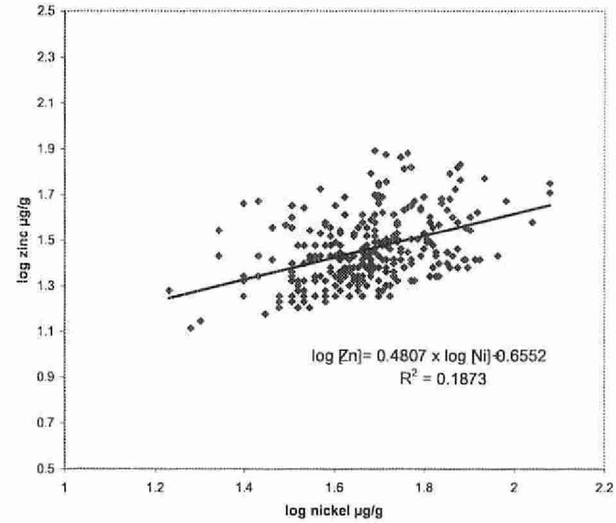


Fig. 10.4.1.19b: log Zn vs. log Ni, 0-5 cm, Outer Com.

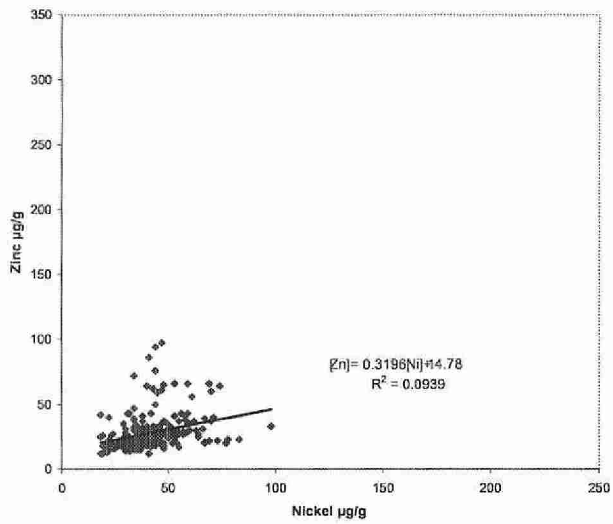


Fig. 10.4.1.20: Zn vs. Ni, 5-10 cm, Outer Com.

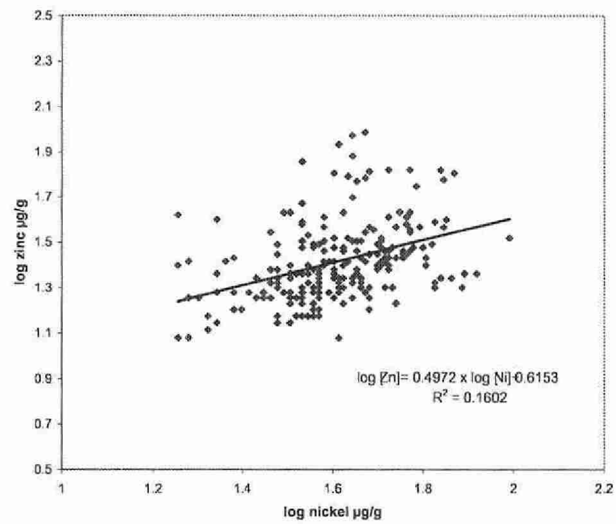


Fig. 10.4.1.20b: log Zn vs. log Ni, 5-10 cm, Outer Com.

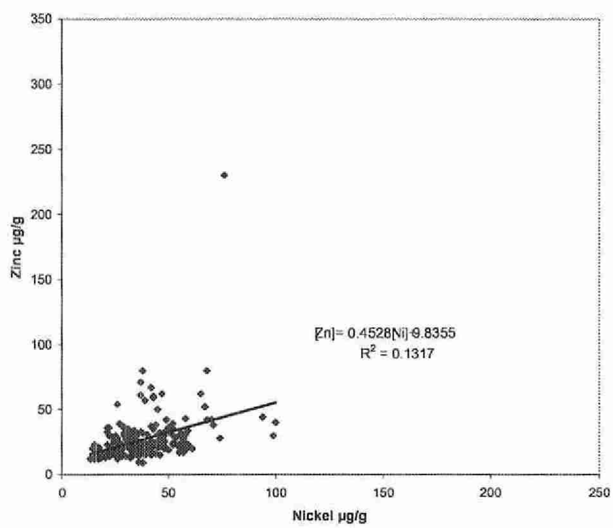


Fig. 10.4.1.21: Zn vs. Ni, 10-20 cm, Outer Com.

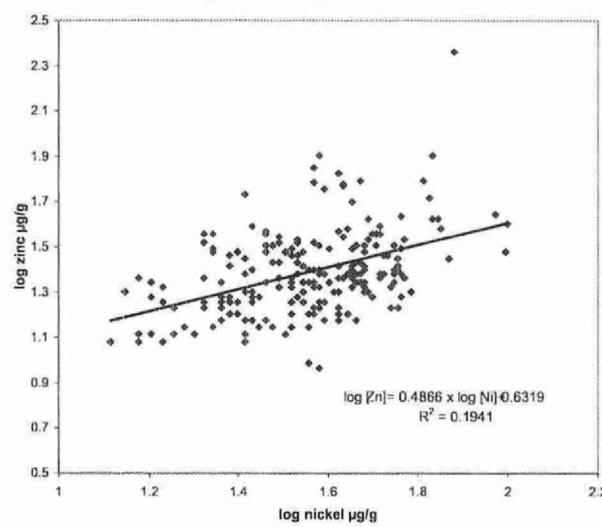


Fig. 10.4.1.21b: log Zn vs, log Ni, 10-20 cm, Outer com.

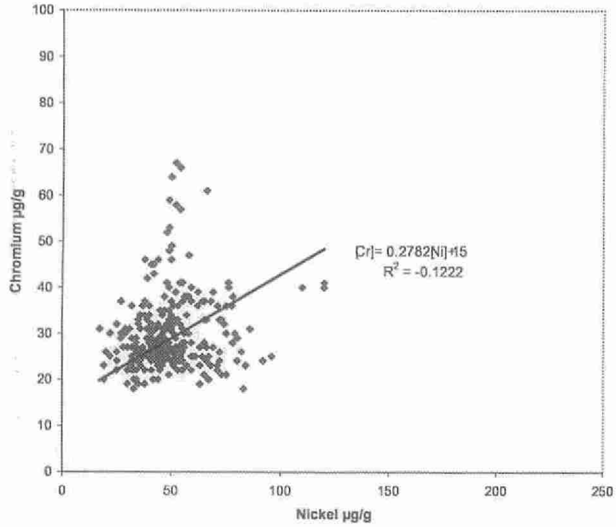


Fig. 10.4.1.22: Cr vs. Ni, 0-5 cm, Outer Com.

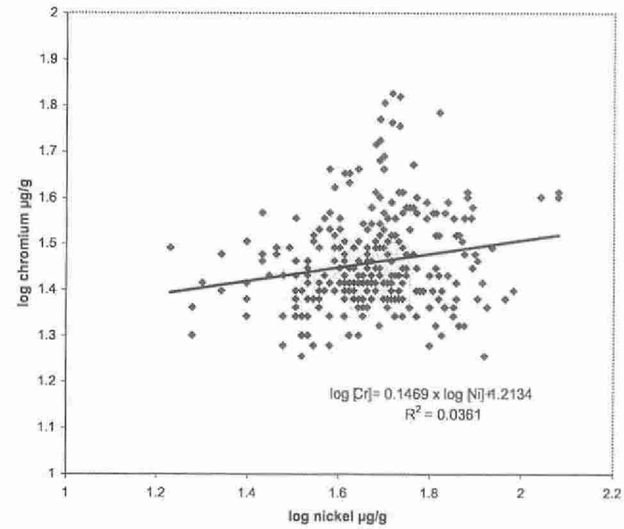


Fig. 10.4.1.22b: log Cr vs. log Ni, 0-5 cm, Outer Com.

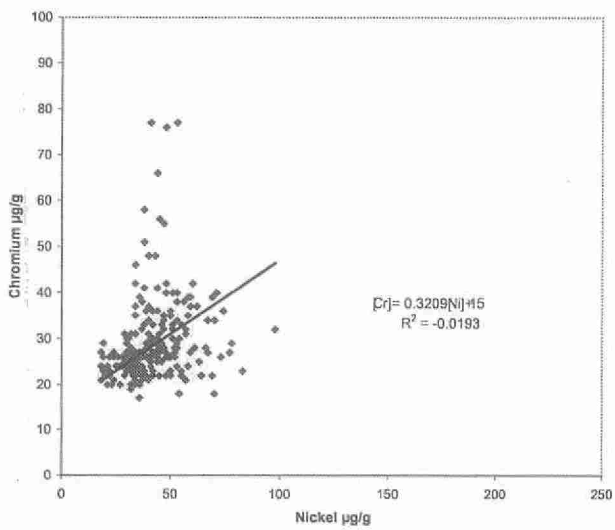


Fig. 10.4.1.23: Cr vs. Ni, 5-10 cm, Outer Com.

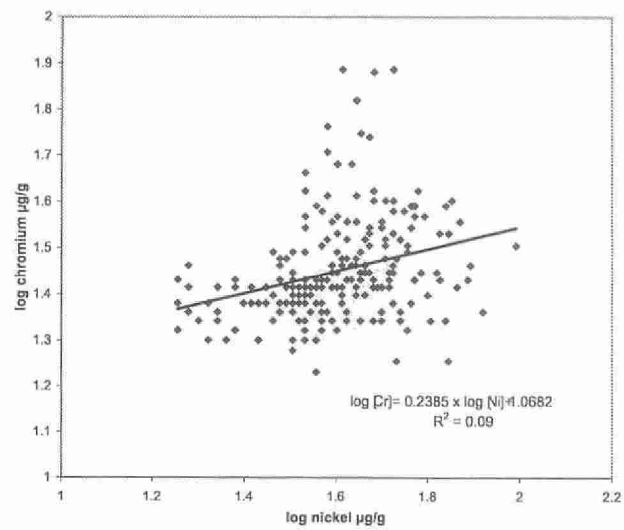


Fig. 10.4.1.23b: log Cr vs. log Ni, 5-10 cm, Outer Com.

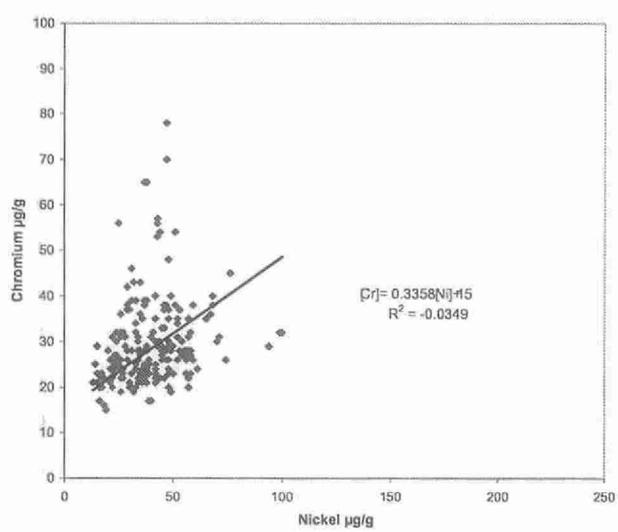


Fig. 10.4.1.24: Cr vs. Ni, 10-20 cm, Outer Com.

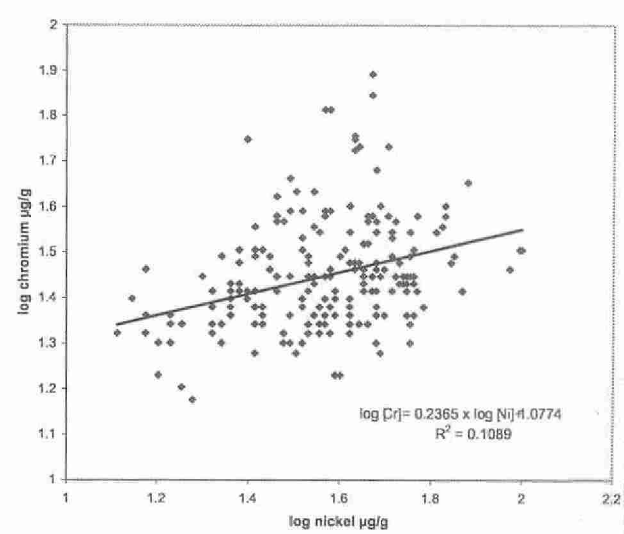


Fig. 10.4.1.24b: log Cr vs. log Ni, 10-20 cm, Outer Com.

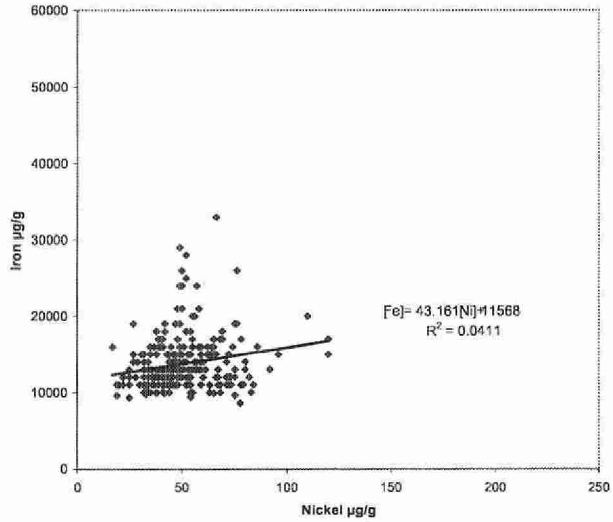


Fig. 10.4.1.25: Fe vs. Ni, 0-5 cm, Outer Com.

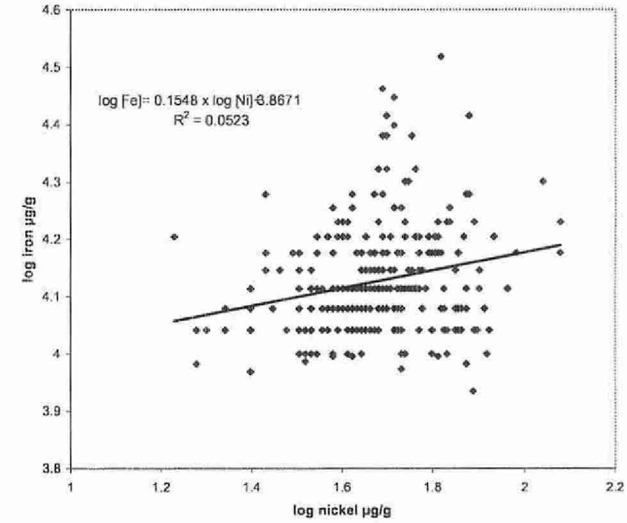


Fig. 10.4.1.25b: log Fe vs. log Ni, 0-5 cm, Outer Com.

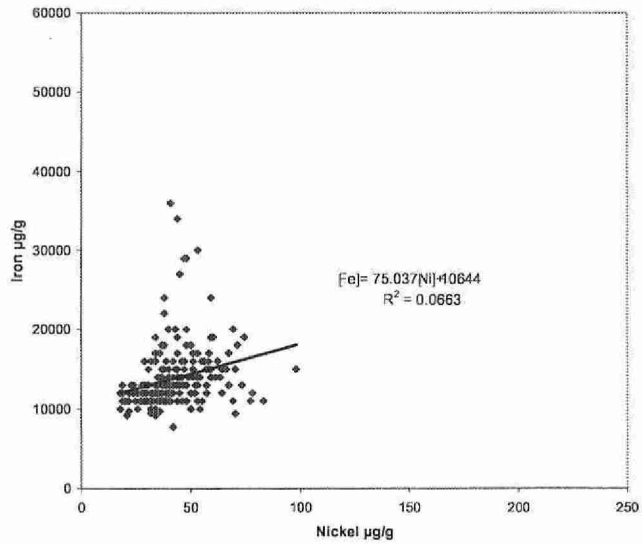


Fig. 10.4.1.26: Fe vs. Ni, 5-10 cm, Outer Com.

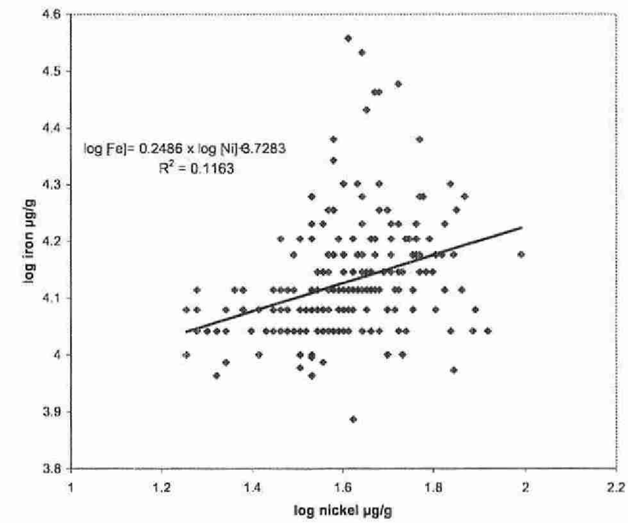


Fig. 10.4.1.26b: log Fe vs. log Ni, 5-10 cm, Outer Com.

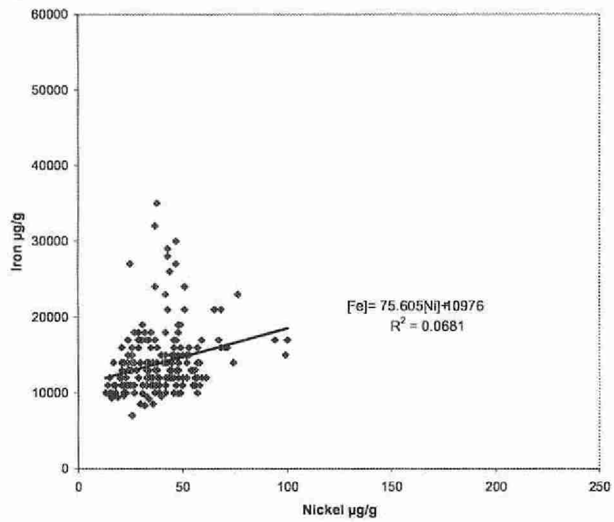


Fig. 10.4.1.27: Fe vs. Ni, 10-20 cm, Outer Com.

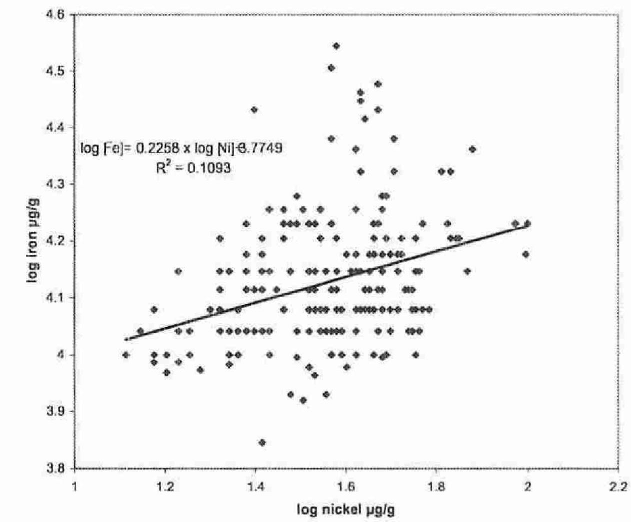


Fig. 10.4.1.27b: log Fe vs. log Ni, 10-20 cm, Outer Com.

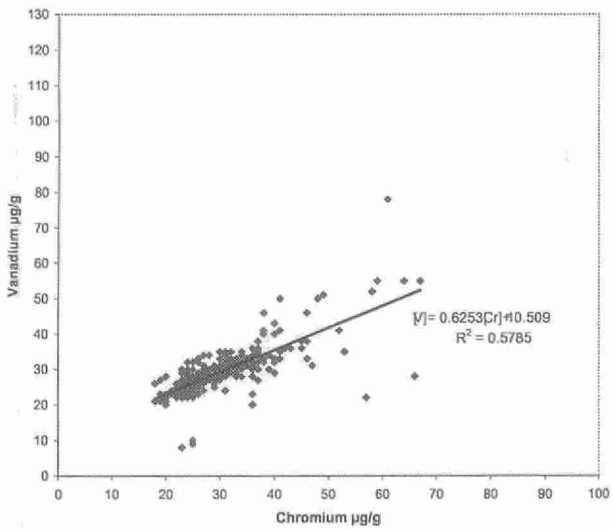


Fig. 10.4.1.28: V vs. Cr, 0-5 cm, Outer Com.

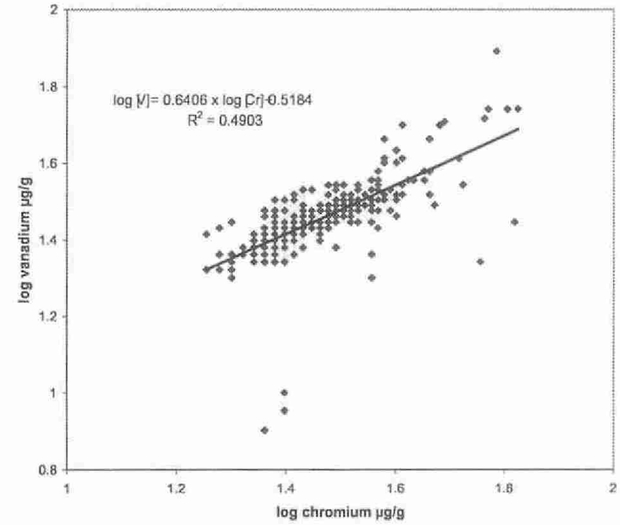


Fig. 10.4.1.28b: log V vs. Log Cr, 0-5 cm, Outer Com.

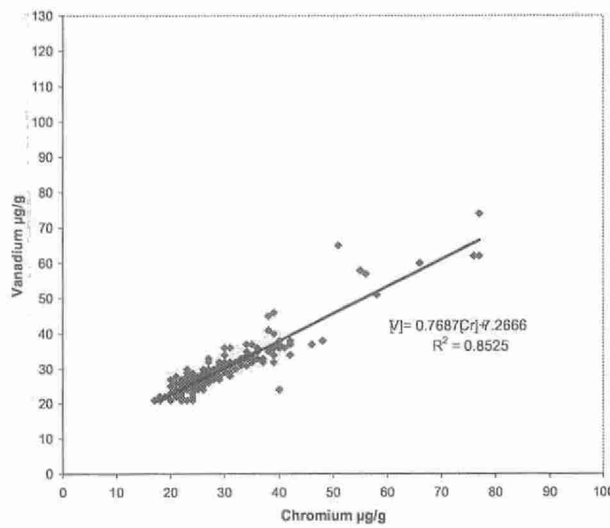


Fig. 10.4.1.29: V vs. Cr, 5-10 cm, Outer Com.

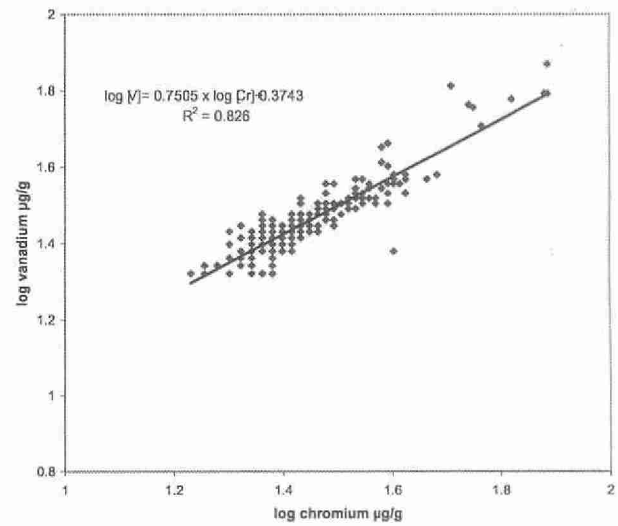


Fig. 10.4.1.29b: log V vs. log Cr, 5-10 cm, Outer Com.

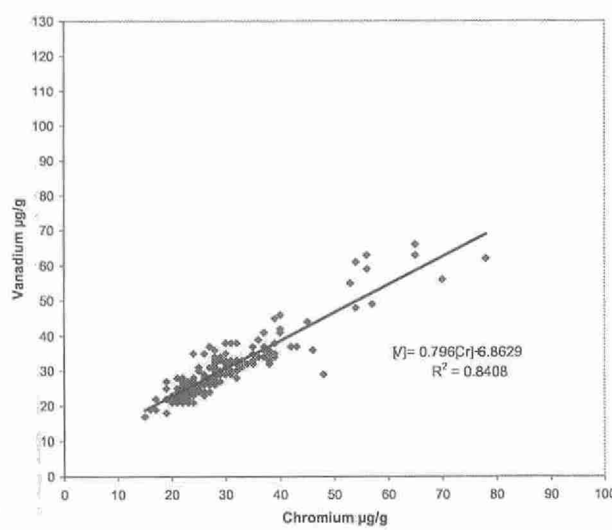


Fig. 10.4.1.30: V vs. Cr, 10-20 cm, Outer Com.

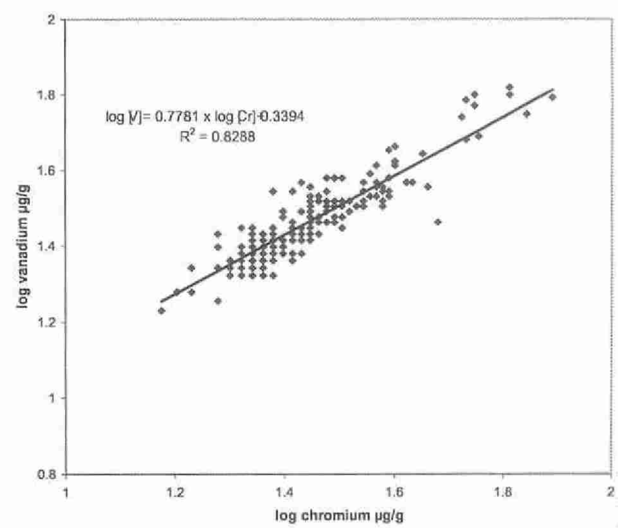


Fig. 10.4.1.30b: log V vs. log Cr, 10-20 cm, Outer Com.

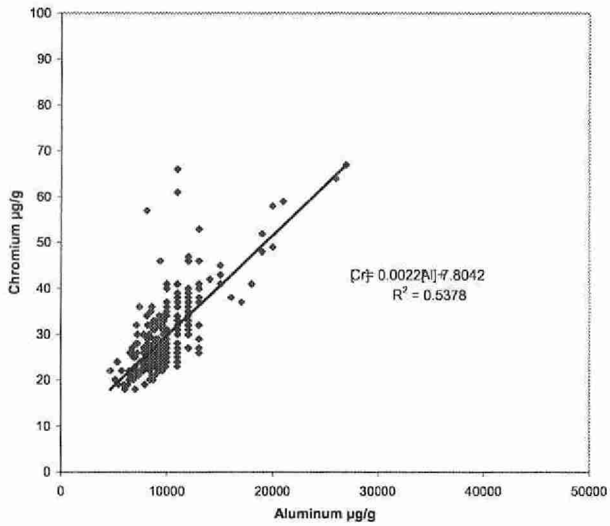


Fig. 10.4.1.31: Cr vs. Al, 0-5 cm, Outer Com.

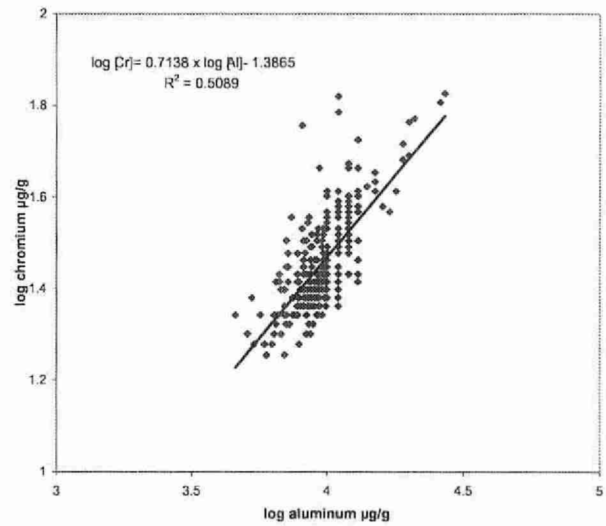


Fig. 10.4.1.31b: log Cr vs. log Al, 0-5 cm, Outer Com.

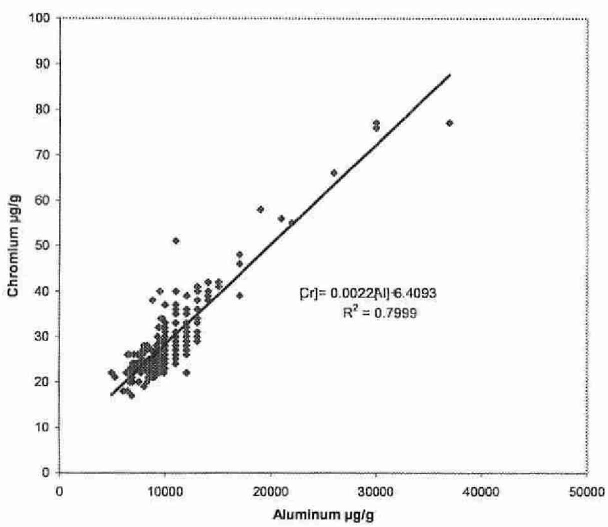


Fig. 10.4.1.32: Cr vs. Al, 5-10 cm, Outer Com.

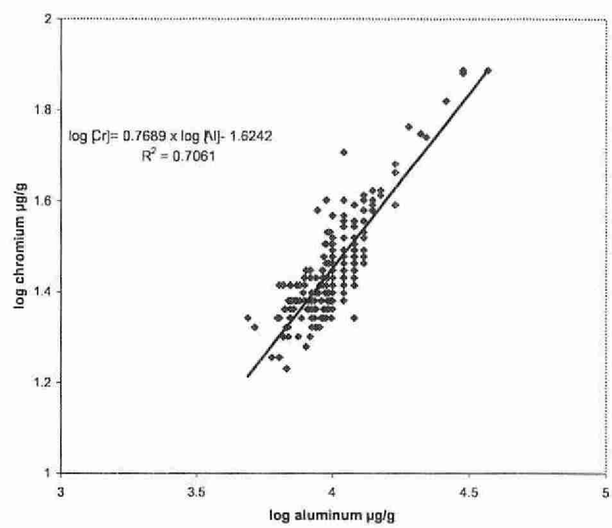


Fig. 10.4.1.32b: log Cr vs. log Al, 5-10 cm, Outer Com.

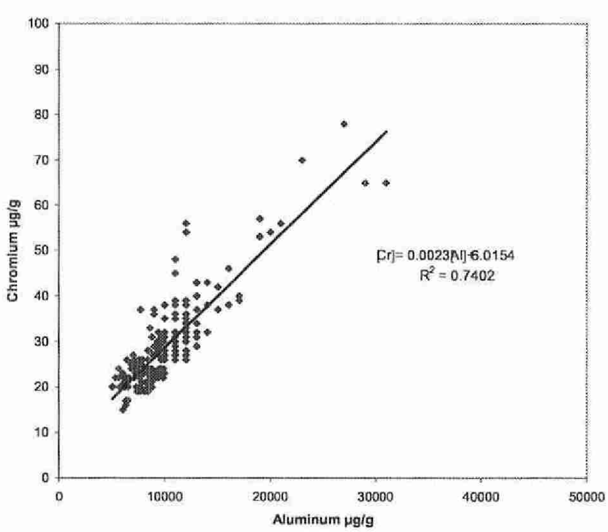


Fig. 10.4.1.33: Cr vs. Al, 10-20 cm, Outer Com.

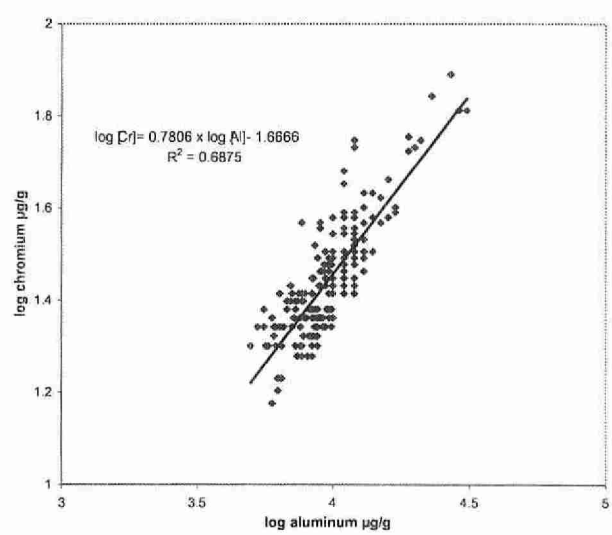


Fig. 10.4.1.33b: log Cr vs. log Al, 10-20 cm, Outer Com.

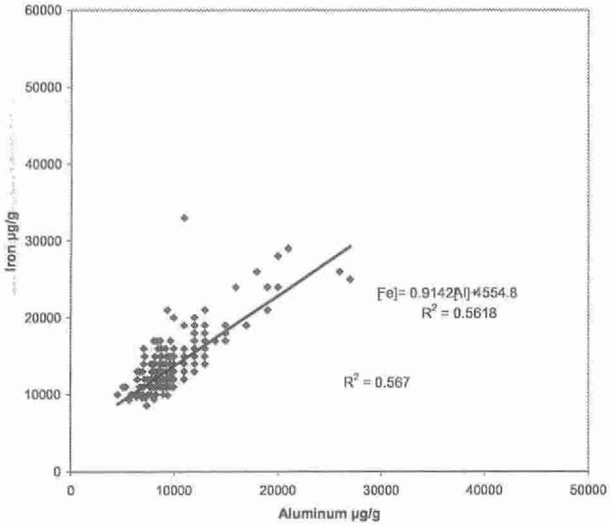


Fig. 10.4.1.34: Fe vs. Al, 0-5 cm, Outer Com.

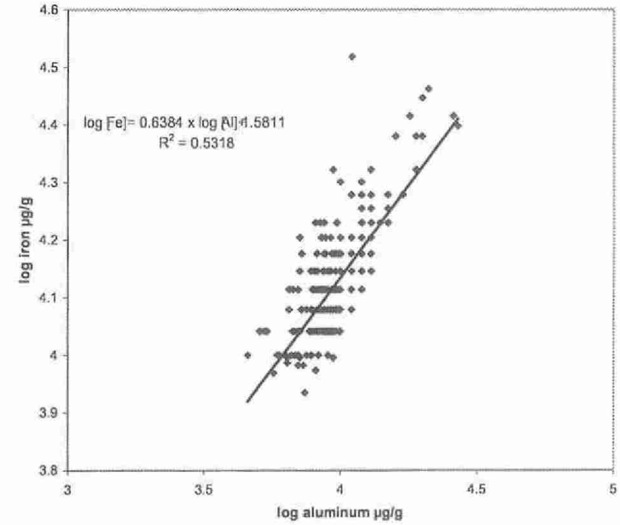


Fig. 10.4.1.34b: log Fe vs. log Al, 0-5 cm, Outer Com.

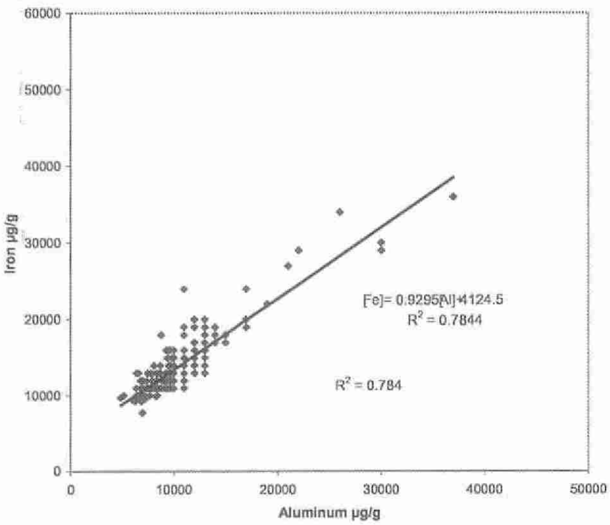


Fig. 10.4.1.35: Fe vs. Al, 5-10 cm, Outer Com.

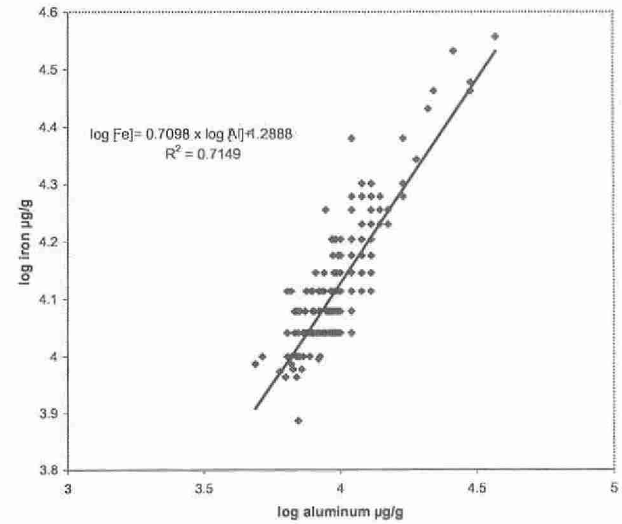


Fig. 10.4.1.35b: log Fe vs. log Al, 5-10 cm, Outer Com.

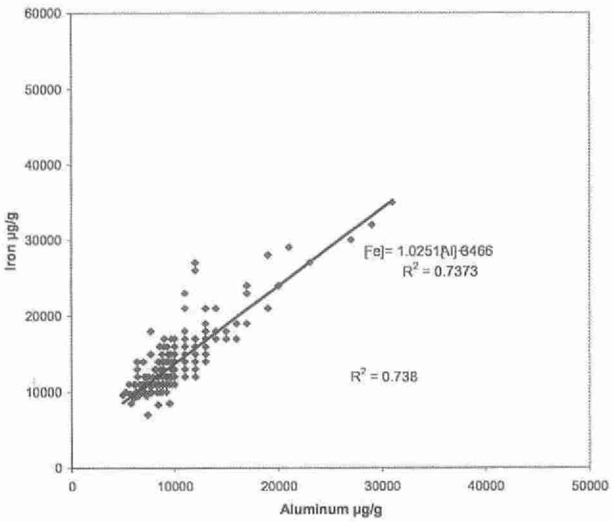


Fig. 10.4.1.36: Fe vs. Al, 10-20 cm, Outer Com.

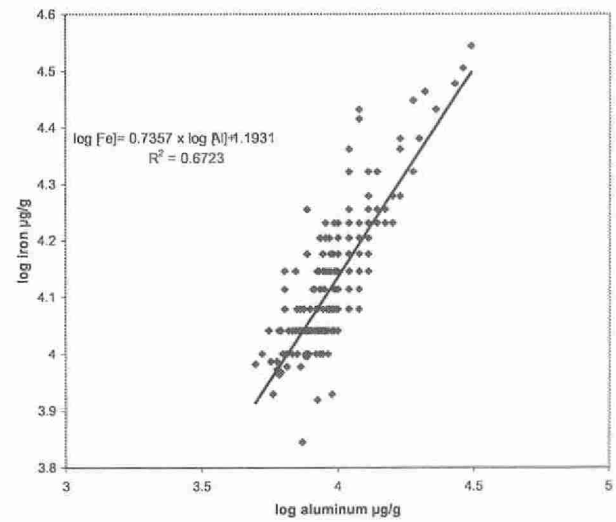


Fig. 10.4.1.36b: log Fe vs. log Al, 10-20 cm, Outer Com.

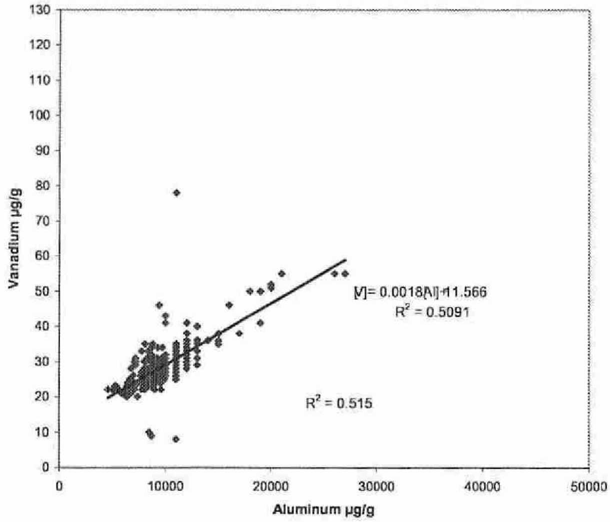


Fig. 10.4.1.37: V vs. Al, 0-5 cm, Outer Com.

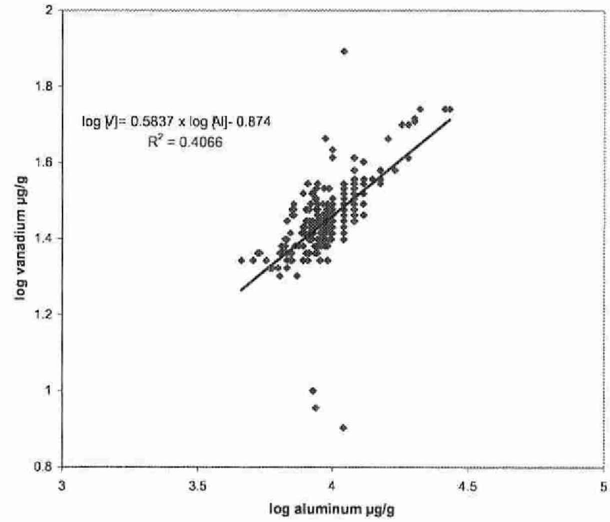


Fig. 10.4.1.37b: log V vs. log Al, 0-5 cm, Outer Com.

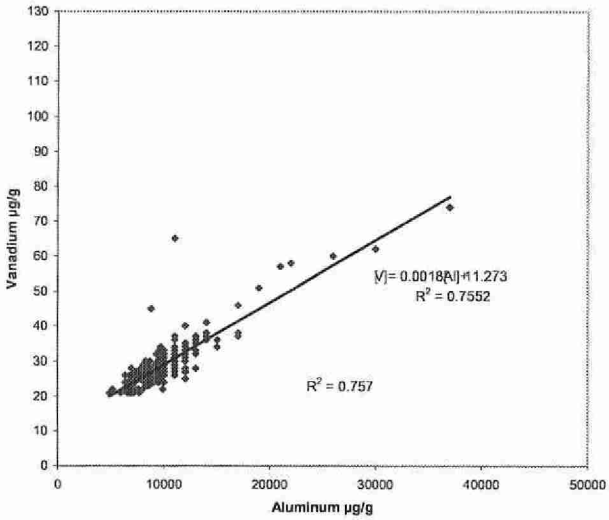


Fig. 10.4.1.38: V vs. Al, 5-10 cm, Outer Com.

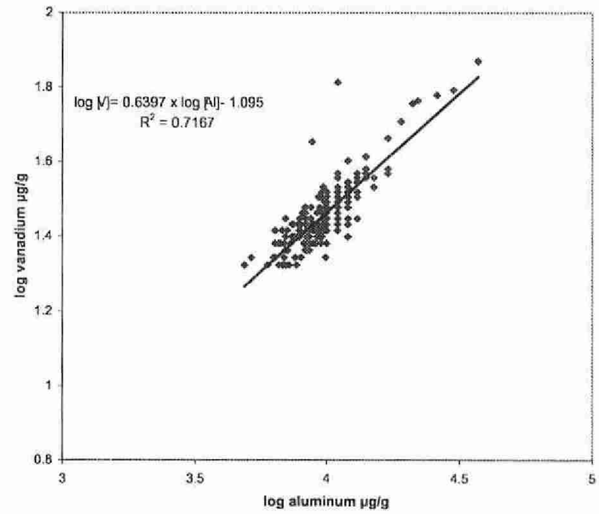


Fig. 10.4.1.38b: log V vs. log Al, 5-10 cm, Outer Com.

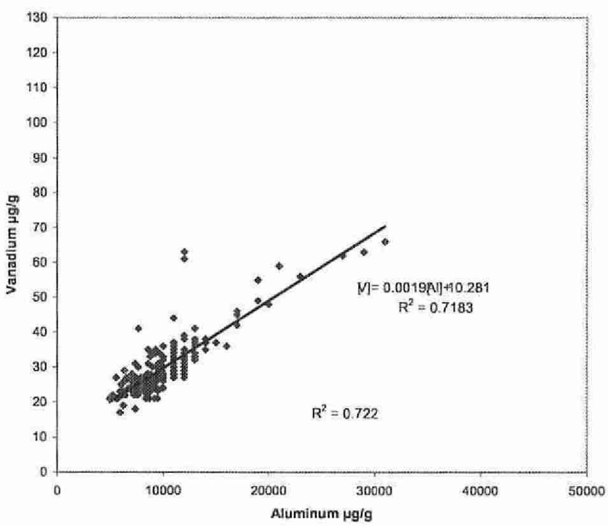


Fig. 10.4.1.39: V vs. Al, 10-20 cm, Outer Com.

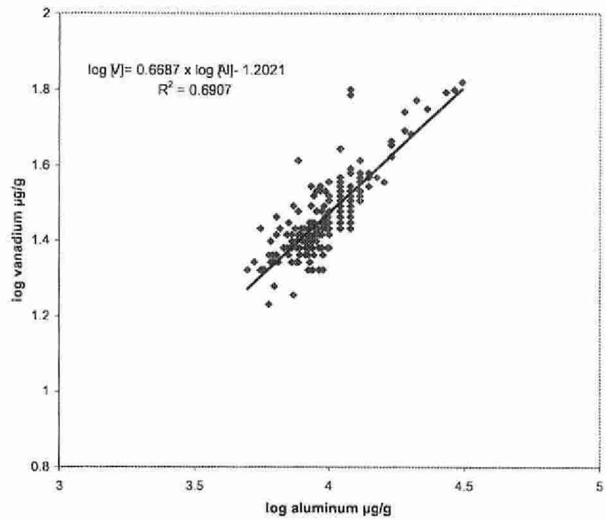


Fig. 10.4.1.39b: log V vs. log Al, 10-20 cm, Outer Com.

Table 10.4.1.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in the Outer Sudbury Communities

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	0	0.14	0.71	0.11	0.35	0.67	0.34	0.21	0.67	0.24	0.32	0.51	0.00	0.25	0.04	0.56	0.70	0.49
Sb	0.00	1	0.16	0.04	0.53	0.08	0.02	0.07	0.08	0.09	0.03	-0.02	0.05	0.60	0.03	0.27	0.00	0.05	0.06
As	0.09	0.05	1	0.06	0.12	-0.10	-0.03	0.05	0.28	0.08	0.25	-0.10	0.00	0.15	0.24	0.11	-0.16	0.04	0.20
Ba	**0.87**	0.01	0.05	1	0.16	0.50	0.68	0.64	0.34	0.71	0.34	0.57	**0.75**	0.08	0.38	0.04	0.55	0.72	0.69
Cd	0.19	0.06	-0.01	0.15	1	0.11	0.13	0.18	0.05	0.17	0.09	0.10	0.16	0.66	0.03	0.30	0.08	0.17	0.17
Ca	0.05	0.05	0.03	0.14	0.04	1	0.52	0.43	0.05	0.39	0.06	0.72	0.53	0.04	0.21	0.02	0.67	0.41	0.29
Cr	0.74	0.01	-0.04	0.72	0.18	0.28	1	0.60	0.15	**0.76**	0.27	0.69	0.64	0.07	0.18	0.04	0.58	**0.80**	0.56
Co	0.54	0.05	0.09	0.69	0.22	0.17	0.61	1	0.34	**0.75**	0.28	0.74	**0.80**	0.13	0.39	0.03	0.28	0.66	0.61
Cu	0.18	0.06	0.26	0.24	-0.01	0.08	0.15	0.38	1	0.26	0.55	0.06	0.27	0.06	**0.85**	0.14	0.03	0.23	0.44
Fe	**0.75**	0.03	0.07	**0.77**	0.16	0.06	**0.78**	**0.79**	0.25	1	0.23	0.67	**0.80**	0.12	0.24	0.02	0.39	**0.89**	0.68
Pb	0.06	0.00	0.11	0.15	0.01	0.28	0.33	0.09	0.23	0.04	1	0.08	0.23	0.1	0.54	0.10	0.03	0.21	0.56
Mg	0.45	0.01	0.00	0.59	0.13	0.50	0.62	0.73	0.08	0.69	0.04	1	0.72	0	0.10	0.00	0.44	0.62	0.47
Mn	0.61	0.01	0.22	0.73	0.09	0.20	0.60	**0.80**	0.31	**0.79**	0.09	0.64	1	0.11	0.33	0.02	0.44	**0.75**	0.67
Mo	-0.01	0.35	0.09	0.02	0.13	0.01	0.02	0.09	0.09	0.06	0.03	0.01	0.07	1	0.00	0.34	0.00	0.14	0.12
Ni	0.16	0.02	0.23	0.21	-0.01	0.18	0.16	0.34	**0.84**	0.20	0.23	0.07	0.31	0.03	1	0.10	0.17	0.23	0.41
Se	-0.01	0.15	0.10	0.00	0.04	0.02	0.02	0.05	0.25	0.01	0.00	-0.01	0.04	0.3	0.22	1	-0.06	0.03	0.07
Sr	0.47	0.03	-0.10	0.44	0.11	0.42	0.49	0.28	-0.02	0.36	-0.02	0.40	0.40	0.03	0.09	-0.03	1	0.53	0.22
V	0.72	0.02	0.05	0.72	0.13	0.04	**0.76**	0.67	0.22	**0.91**	0.02	0.60	0.71	0.08	0.18	0.00	0.40	1	0.64
Zn	0.59	0.07	0.28	0.72	0.18	0.09	0.58	0.69	0.46	0.71	0.30	0.46	**0.78**	0.13	0.39	0.11	0.22	0.63	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.1.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in the Outer Sudbury Communities

	Al	Sb	As	Ba	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	-0.01	0.14	**0.77**	0.52	**0.77**	0.52	0.42	**0.78**	0.36	0.42	0.61	0.00	0.48	0.07	0.69	**0.80**	0.49
Sb	-0.04	1	-0.08	0.02	-0.02	0.03	-0.02	-0.06	0.01	0.04	-0.04	0.02	-0.02	0.00	-0.04	0.06	0.00	-0.02
As	0.05	-0.06	1	0.16	0.05	0.00	0.16	0.37	0.06	0.27	-0.11	0.05	0.11	0.39	-0.04	-0.03	0.03	0.18
Ba	**0.90**	0.02	0.04	1	0.48	0.68	0.66	0.52	**0.77**	0.46	0.51	0.71	0.01	0.53	0.06	0.59	**0.76**	0.71
Ca	0.11	-0.04	0.01	0.13	1	0.71	0.54	0.29	0.59	0.23	0.70	0.63	0.08	0.42	0.01	**0.78**	0.64	0.42
Cr	**0.89**	-0.01	-0.01	**0.84**	0.28	1	0.68	0.27	**0.82**	0.28	**0.75**	**0.76**	0.08	0.37	0.05	0.74	**0.87**	0.56
Co	0.70	-0.03	0.20	0.74	0.24	**0.77**	1	0.33	**0.77**	0.34	**0.75**	**0.77**	0.07	0.46	0.06	0.42	0.67	0.64
Cu	0.23	-0.07	0.44	0.28	0.21	0.19	0.34	1	*0.36*	*0.61*	*0.08*	*0.25*	*0.05*	***0.85***	*0.05*	*0.30*	*0.37*	*0.47*
Fe	**0.89**	-0.02	0.08	**0.86**	0.18	**0.92**	**0.86**	0.25	1	0.34	0.73	**0.85**	0.05	0.42	0.03	0.59	**0.90**	0.68
Pb	0.09	0.22	0.28	0.30	-0.02	0.14	0.20	0.44	0.19	1	0.11	0.26	0.11	0.54	-0.08	0.28	0.36	0.60
Mg	0.59	-0.05	-0.05	0.61	0.59	0.73	0.70	0.08	0.74	0.03	1	**0.77**	0.09	0.14	0.00	0.49	0.70	0.57
Mn	0.73	-0.01	0.31	**0.77**	0.21	**0.79**	**0.86**	0.29	**0.87**	0.31	0.67	1	0.08	0.34	0.03	0.56	**0.79**	0.71
Mo	-0.02	-0.02	0.24	0.00	0.01	0.03	0.11	0.10	0.04	0.17	0.02	0.19	1	0.03	-0.02	0.07	0.06	0.07
Ni	0.25	-0.03	0.38	0.23	0.20	0.21	0.39	**0.83**	0.25	0.28	0.07	0.29	0.04	1	-0.01	0.39	0.43	0.46
Se	0.12	-0.04	-0.04	0.16	0.00	0.14	0.10	0.06	0.11	-0.05	0.06	0.07	-0.02	0	1	0.07	0.06	-0.02
Sr	0.62	0.02	-0.01	0.55	0.42	0.67	0.48	0.29	0.57	0.16	0.43	0.54	0.06	0.33	0.12	1	0.72	0.35
V	**0.87**	-0.02	0.06	**0.83**	0.15	**0.92**	**0.76**	0.24	**0.95**	0.16	0.68	**0.82**	0.04	0.23	0.14	0.63	1	0.64
Zn	0.59	0.09	0.22	**0.75**	0.12	0.63	0.66	0.38	0.70	0.65	0.47	0.73	0.09	0.3	0.01	0.39	0.66	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.1.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in the Outer Sudbury Communities

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.1*	*0.18*	***0.83***	*0.05*	*0.53*	***0.80***	*0.58*	*0.42*	***0.79***	*0.30*	*0.43*	*0.64*	*-0.08*	*0.46*	*0.10*	***0.75***	***0.81***	*0.56*
Sb	0.03	1	*0.24*	*0.16*	*0.45*	*0.10*	*0.18*	*0.17*	*0.17*	*0.16*	*0.17*	*0.10*	*0.18*	*0.24*	*0.20*	*-0.03*	*0.12*	*0.14*	*0.16*
As	0.09	0.66	1	*0.21*	*0.19*	*-0.02*	*0.05*	*0.18*	*0.40*	*0.19*	*0.32*	*-0.07*	*0.19*	*-0.05*	*0.37*	*-0.08*	*0.06*	*0.16*	*0.25*
Ba	**0.81**	0.30	0.13	1	*0.12*	*0.51*	*0.70*	*0.65*	*0.46*	***0.78***	*0.42*	*0.51*	*0.70*	*-0.06*	*0.46*	*0.07*	*0.64*	***0.77***	***0.76***
Cd	0.02	0.55	0.10	0.47	1	*0.09*	*0.11*	*0.11*	*0.12*	*0.11*	*0.12*	*0.05*	*0.11*	*-0.01*	*0.12*	*-0.01*	*0.12*	*0.11*	*0.12*
Ca	0.14	0.02	0.01	0.13	0.03	1	*0.70*	*0.57*	*0.27*	*0.63*	*0.21*	*0.69*	*0.68*	*0.10*	*0.29*	*0.07*	***0.78***	*0.62*	*0.47*
Cr	**0.86**	0.13	0.07	**0.77**	0.11	0.27	1	***0.75***	*0.34*	***0.87***	*0.25*	***0.75***	***0.75***	*-0.05*	*0.35*	*0.07*	***0.78***	***0.89***	*0.60*
Co	0.69	0.23	0.25	0.72	0.15	0.33	**0.75**	1	*0.37*	***0.84***	*0.33*	***0.81***	***0.78***	*-0.02*	*0.38*	*0.07*	*0.49*	*0.74*	*0.69*
Cu	0.24	0.38	0.47	0.34	0.28	0.08	0.27	0.44	1	*0.40*	*0.68*	*0.14*	*0.33*	*-0.10*	***0.86***	*0.17*	*0.31*	*0.42*	*0.49*
Fe	**0.86**	0.18	0.17	**0.81**	0.15	0.26	**0.91**	**0.85**	0.35	1	*0.32*	***0.76***	***0.83***	*-0.03*	*0.34*	*0.05*	*0.66*	***0.92***	*0.73*
Pb	0.05	0.71	0.41	0.49	**0.86**	0.02	0.14	0.29	0.54	0.22	1	*0.09*	*0.25*	*-0.04*	*0.63*	*-0.05*	*0.24*	*0.32*	*0.55*
Mg	0.53	0.00	-0.02	0.52	0.00	0.71	0.67	0.66	0.09	0.69	0	1	*0.72*	*0.03*	*0.07*	*0.06*	*0.50*	*0.69*	*0.57*
Mn	0.72	0.35	0.42	0.74	0.19	0.25	**0.77**	**0.82**	0.42	**0.85**	0.35	0.58	1	*0.03*	*0.32*	*0.01*	*0.62*	***0.78***	*0.72*
Mo	-0.04	0.13	-0.03	-0.04	-0.01	0.11	0.07	-0.04	-0.06	-0.04	0	0.07	0	1	*-0.04*	*-0.02*	*-0.04*	*-0.07*	*-0.05*
Ni	0.28	0.22	0.29	0.28	0.17	0.10	0.24	0.41	**0.82**	0.26	0.36	0.03	0.34	-0.01	1	*0.10*	*0.35*	*0.35*	*0.42*
Se	0.14	-0.02	-0.05	0.16	-0.01	0.25	0.13	0.12	0.12	0.10	-0.04	0.12	-0.01	0	0.06	1	*0.09*	*0.09*	*0.02*
Sr	0.67	0.18	0.12	0.61	0.24	0.40	0.70	0.52	0.31	0.64	0.26	0.40	0.61	0	0.33	0.14	1	*0.74*	*0.44*
V	**0.85**	0.11	0.13	**0.78**	0.12	0.19	**0.92**	**0.75**	0.35	**0.96**	0.17	0.61	**0.82**	-0.05	0.25	0.1	0.68	1	*0.70*
Zn	0.46	0.54	0.30	**0.80**	**0.75**	0.11	0.52	0.63	0.51	0.62	**0.82**	0.33	0.69	-0.04	0.36	0	0.47	0.57	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.2 Inner Sudbury Communities (Inner Com.)

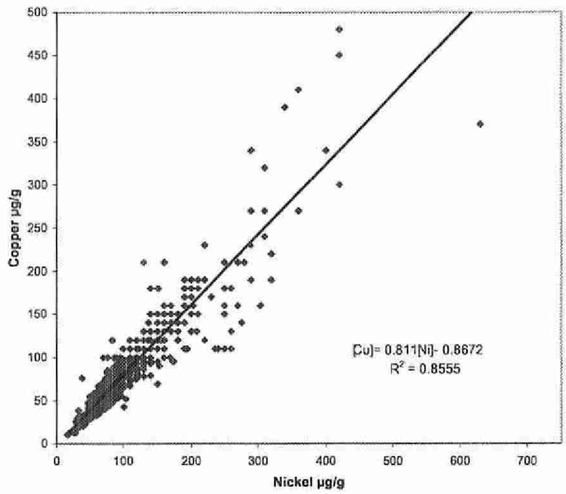


Fig. 10.4.2.1: Cu vs. Ni, 0-5 cm, Inner Com.

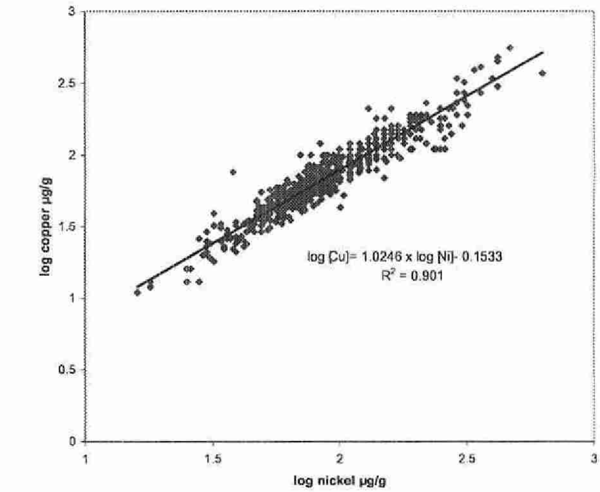


Fig. 10.4.2.1a: log Cu vs. log Ni, 0-5 cm, Inner Com.

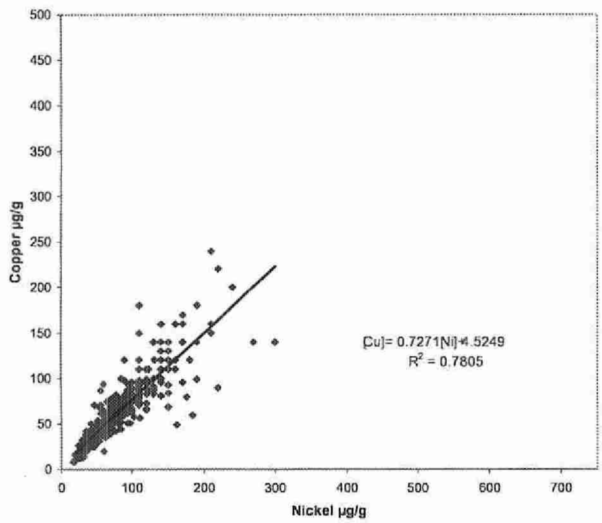


Fig. 10.4.2.2: Cu vs. Ni, 5-10 cm, Inner Com.

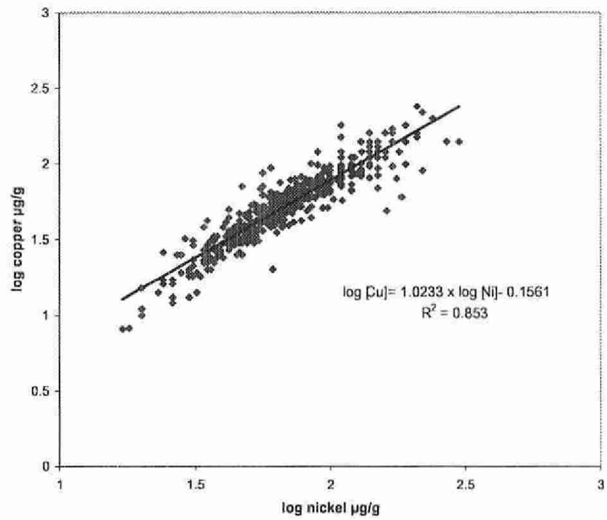


Fig. 10.4.2.2b: log Cu vs. log Ni, 5-10 cm, Inner Com.

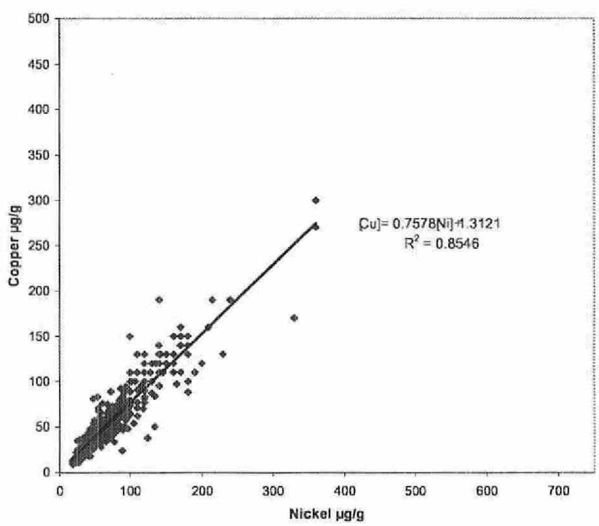


Fig. 10.4.2.3: Cu vs. Ni, 10-20 cm, Inner Com.

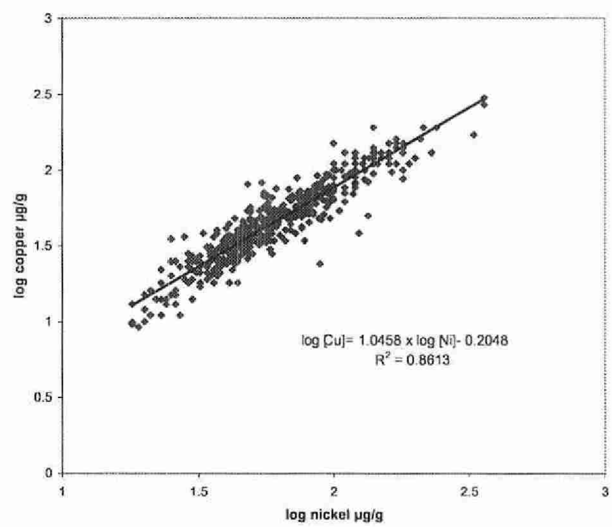


Fig. 10.4.2.3b: log Cu vs. log Ni, 10-20 cm, Inner Com.

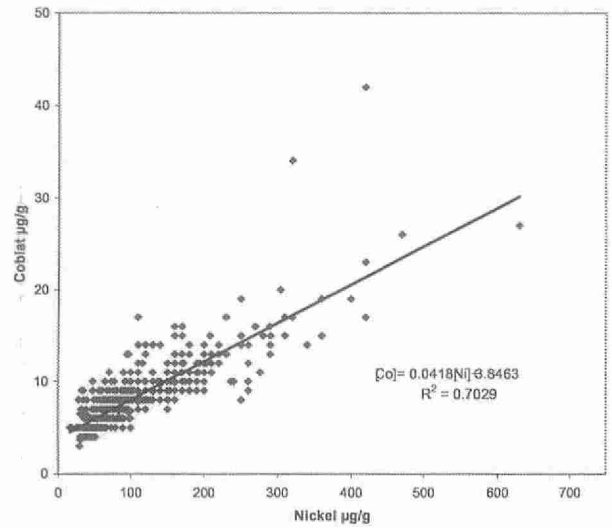


Fig. 10.4.2.4: Co vs. Ni, 0-5 cm, Inner Com.

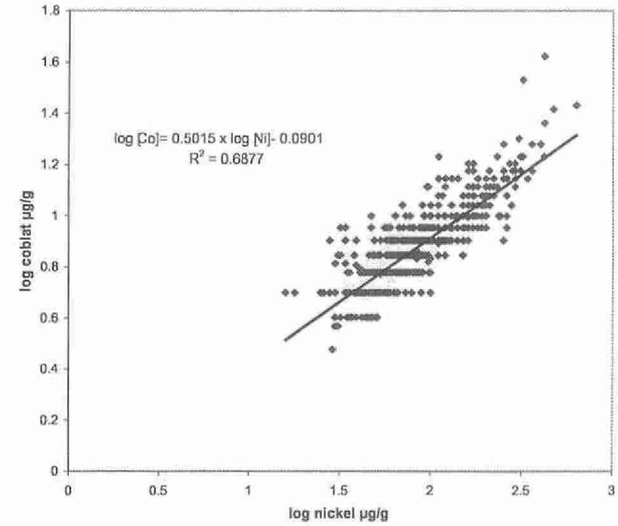


Fig. 10.4.2.4b: log Co vs. log Ni, 0-5 cm, Inner Com.

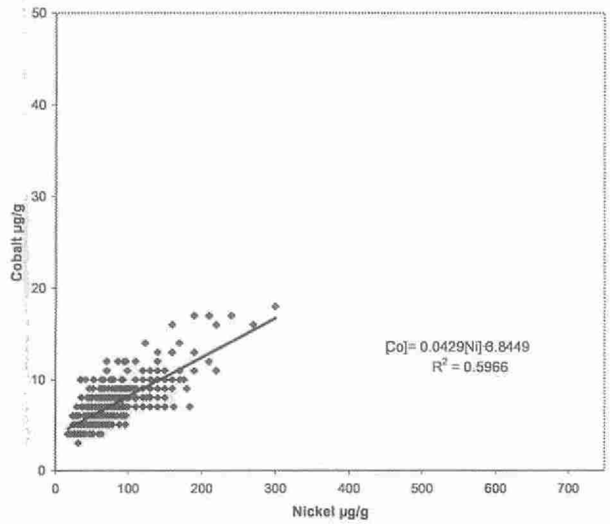


Fig. 10.4.2.5: Co vs. Ni, 5-10 cm, Inner Com.

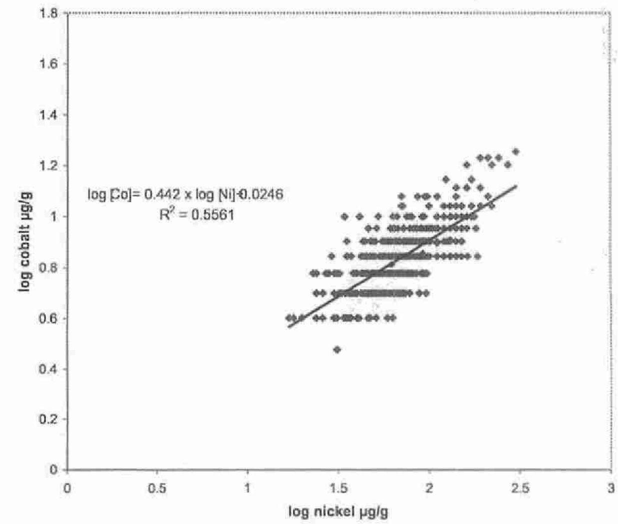


Fig. 10.4.2.5b: log Co vs. log Ni, 5-10 cm, Inner Com.

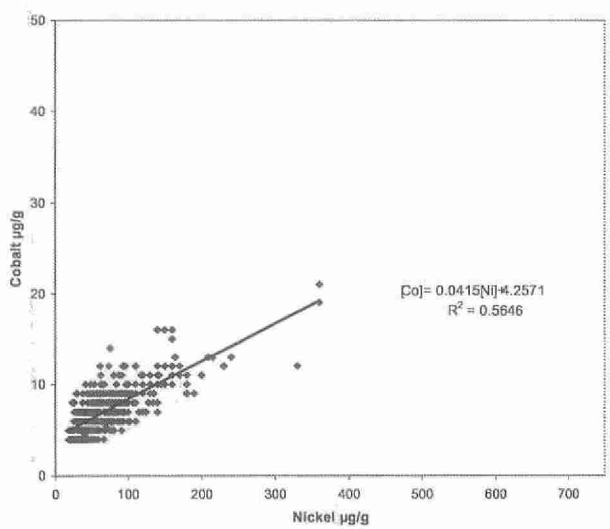


Fig. 10.4.2.6: Co vs. Ni, 10-20 cm, Inner Com.

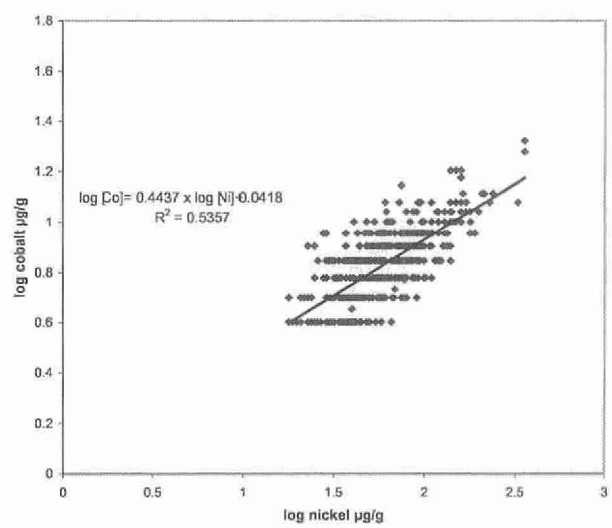


Fig. 10.4.2.6b: log Co vs. log Ni, 10-20 cm, Inner Com.

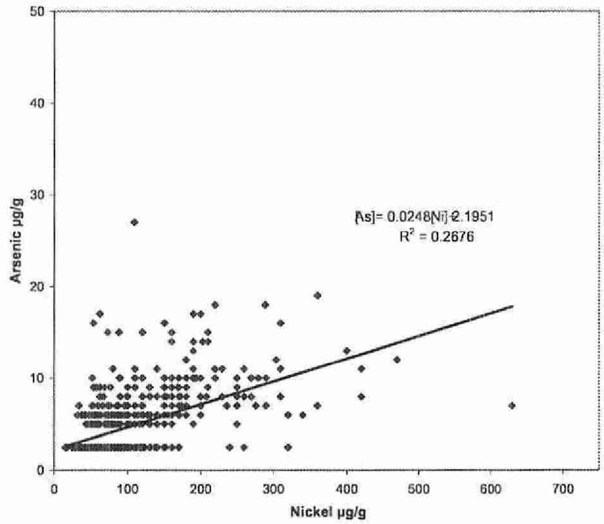


Fig. 10.4.2.7: As vs. Ni, 0-5 cm, Inner Com.

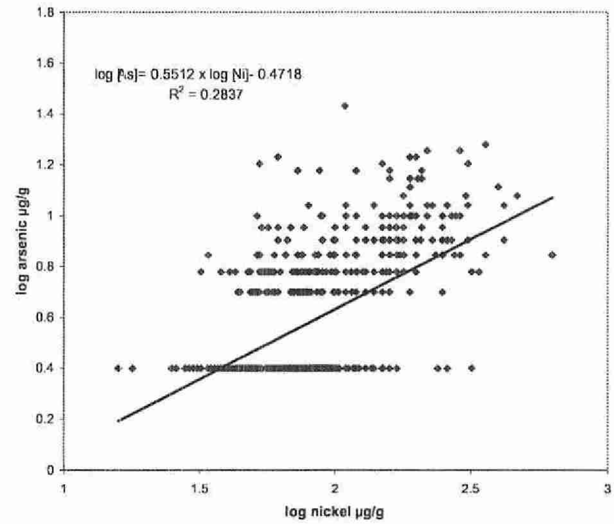


Fig. 10.4.2.7b: log As vs. log Ni, 0-5 cm, Inner Com.

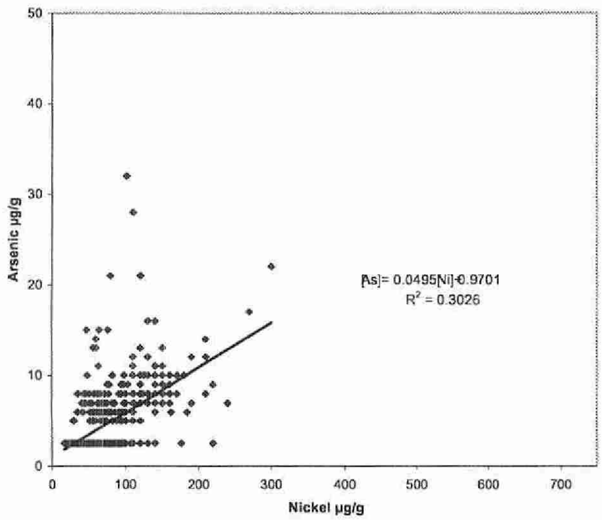


Fig. 10.4.2.8: As vs. Ni, 5-10 cm, Inner Com.

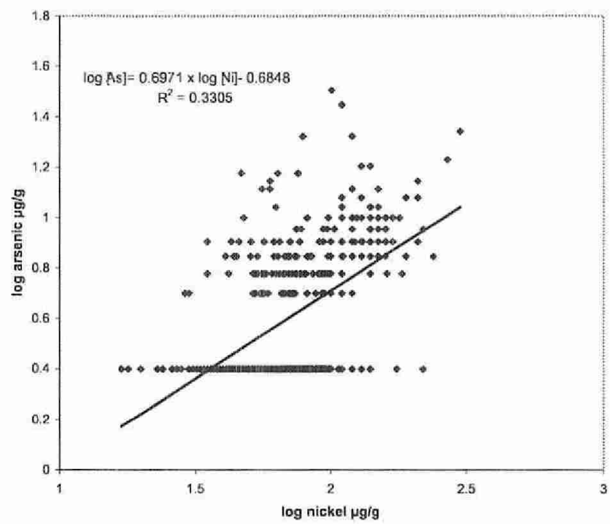


Fig. 10.4.2.8b: log As vs. log Ni, 5-10 cm, Inner Com.

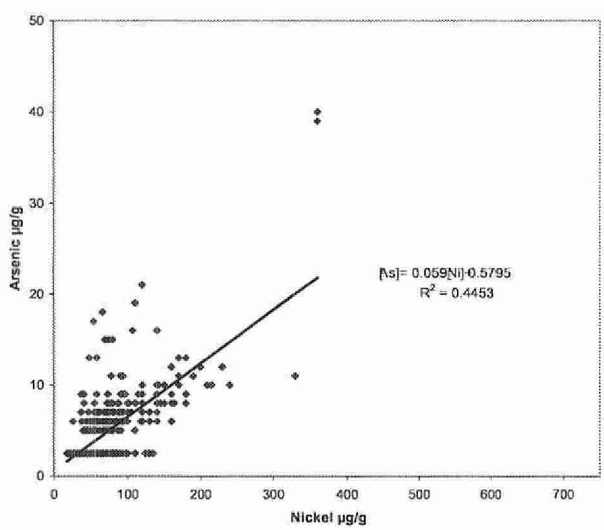


Fig. 10.4.2.9: As vs. Ni, 10-20 cm, Inner Com.

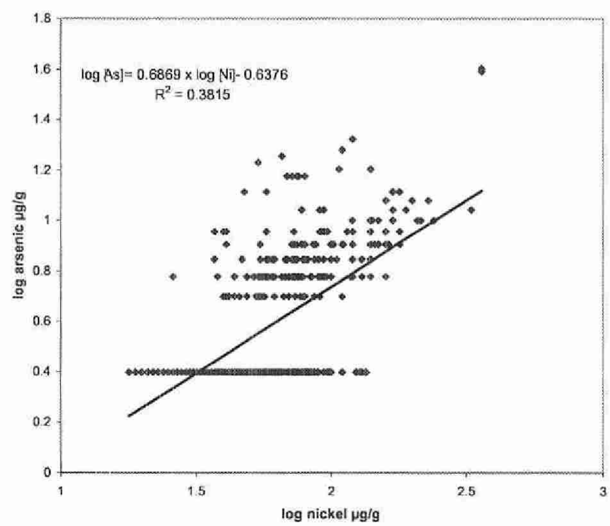


Fig. 10.4.2.9b: log As vs. log Ni, 10-20 cm, Inner Com.

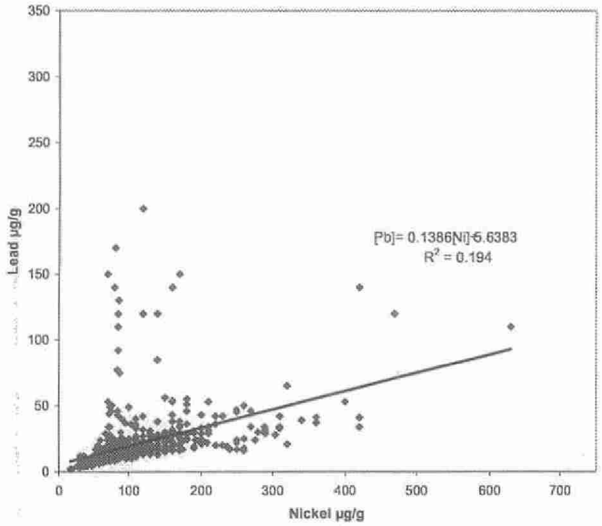


Fig. 10.4.2.10: Pb vs. Ni, 0-5 cm, Inner Com.

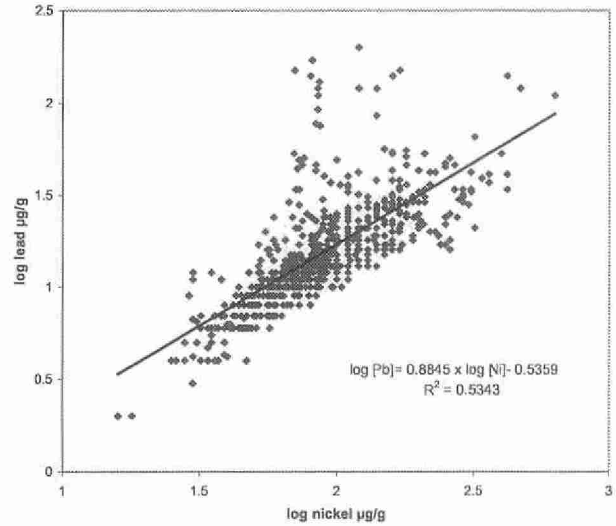


Fig. 10.4.2.10b: log Pb vs. log Ni, 0-5 cm, Inner Com.

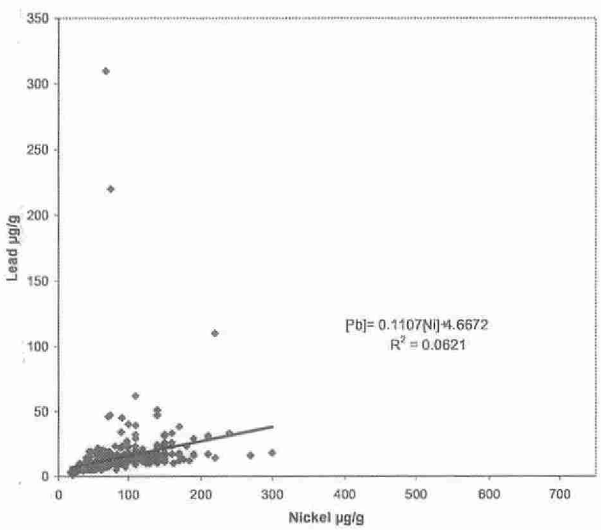


Fig. 10.4.2.11: Pb vs. Ni, 5-10 cm, Inner Com.

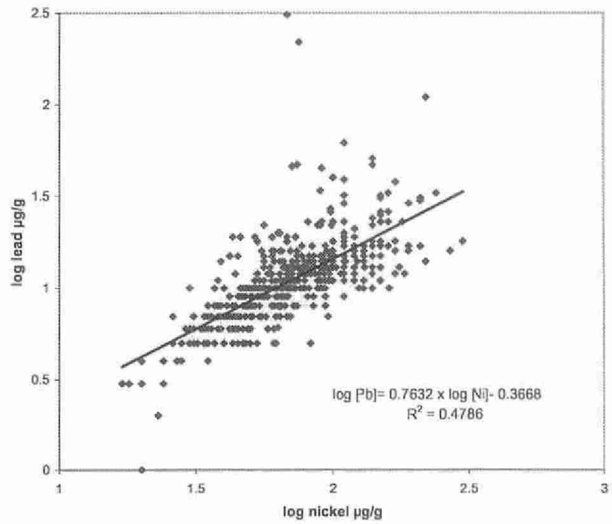


Fig. 10.4.2.11b: log Pb vs. log Ni, 5-10 cm, Inner Com.

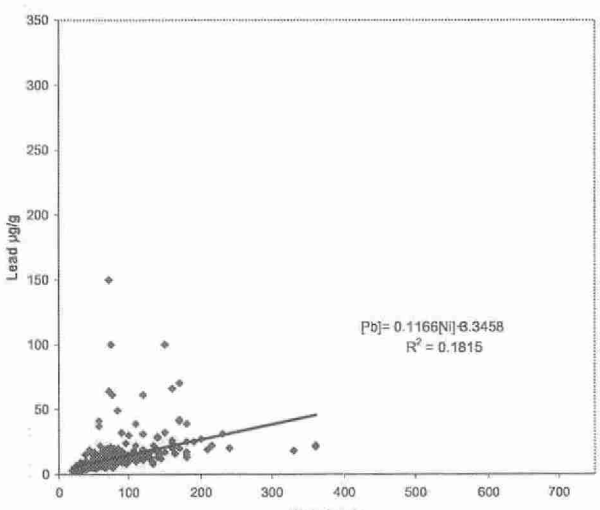


Fig. 10.4.2.12: Pb vs. Ni, 10-20 cm, Inner Com.

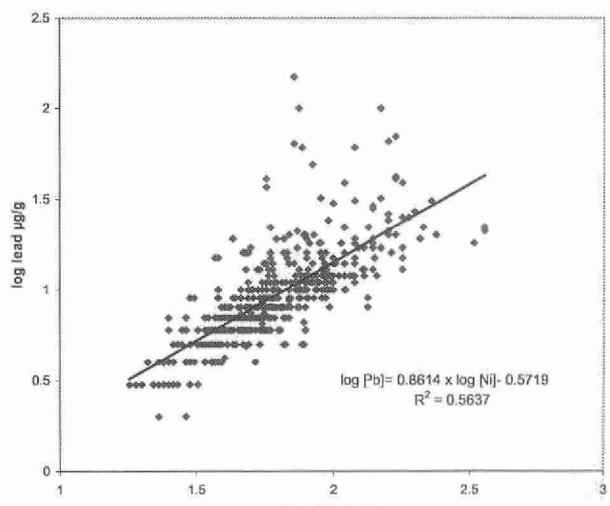


Fig. 10.4.2.12b: log Pb vs. log Ni, 10-20 cm, Inner Com.

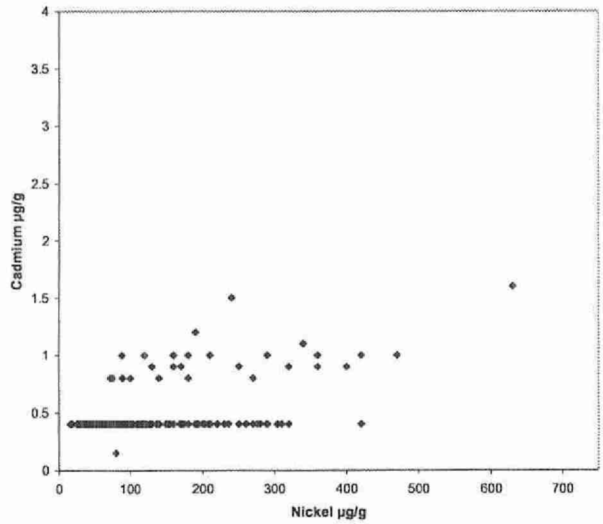


Fig. 10.4.2.13: Cd vs. Ni, 0-5 cm, Inner Com.

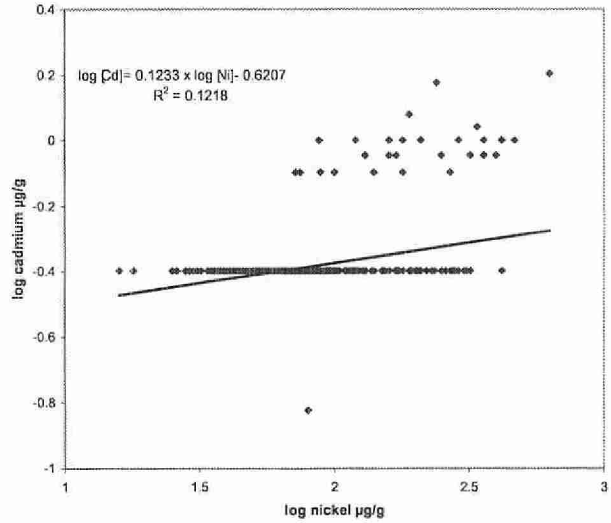


Fig. 10.4.2.13b: log Cd vs. log Ni, 0-5 cm, Inner Com.

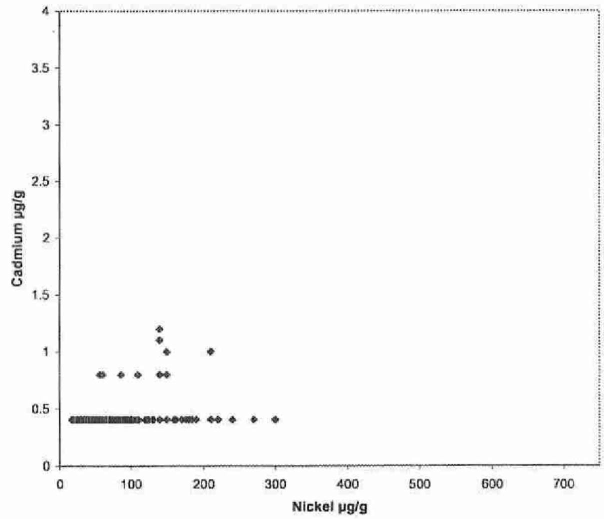


Fig. 10.4.2.14: Cd vs. Ni, 5-10 cm, Inner Com.

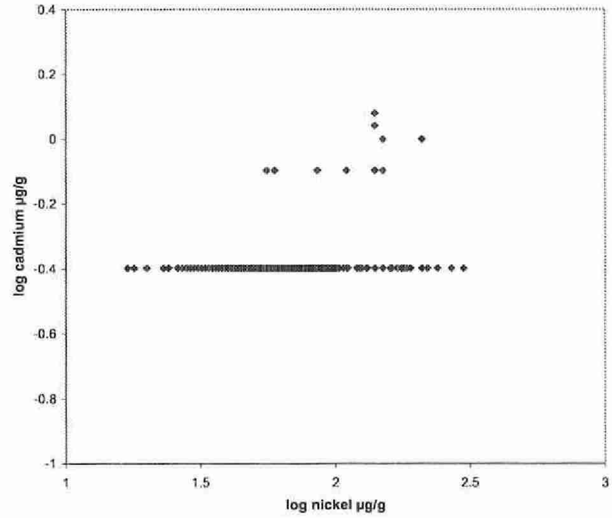


Fig. 10.4.2.14b: log Cd vs. log Ni, 5-10 cm, Inner Com.

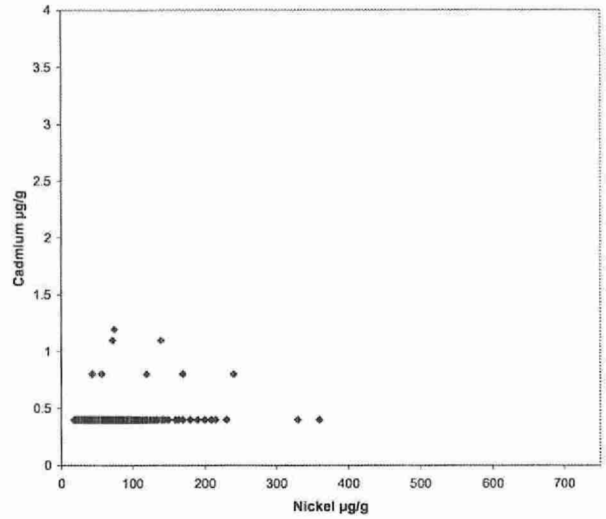


Fig. 10.4.2.15: Cd vs. Ni, 10-20 cm, Inner Com.

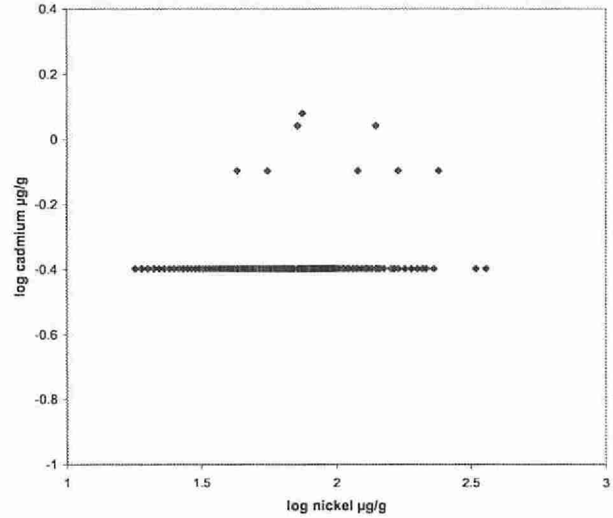


Fig. 10.4.2.15b: log Cd vs. log Ni, 10-20 cm, Inner Com.

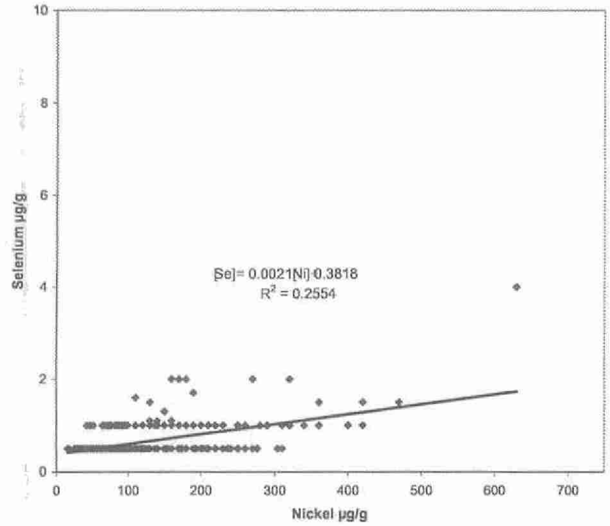


Fig. 10.4.2.16: Se vs. Ni, 0-5 cm, Inner Com.

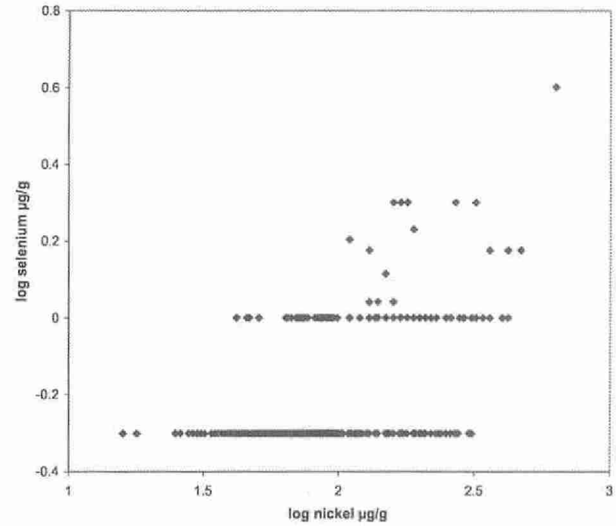


Fig. 10.4.2.16b: log Se vs. log Ni, 0-5 cm, Inner Com.

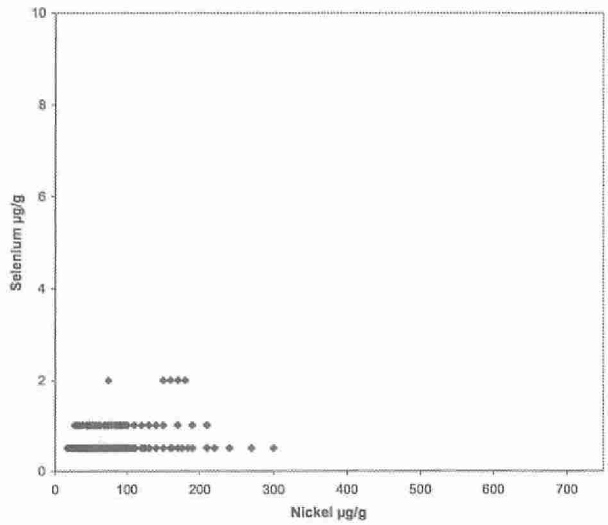


Fig. 10.4.2.17: Se vs. Ni, 5-10 cm, Inner Com.

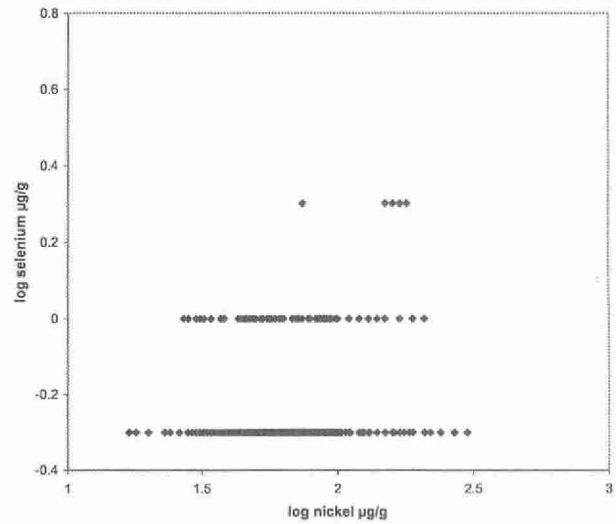


Fig. 10.4.2.17b: log Se vs. log Ni, 5-10 cm, Inner Com.

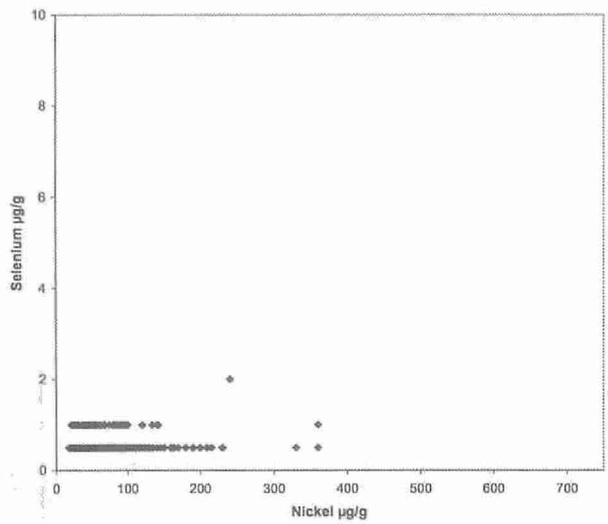


Fig. 10.4.2.18: Se vs. Ni, 10-20 cm, Inner Com.

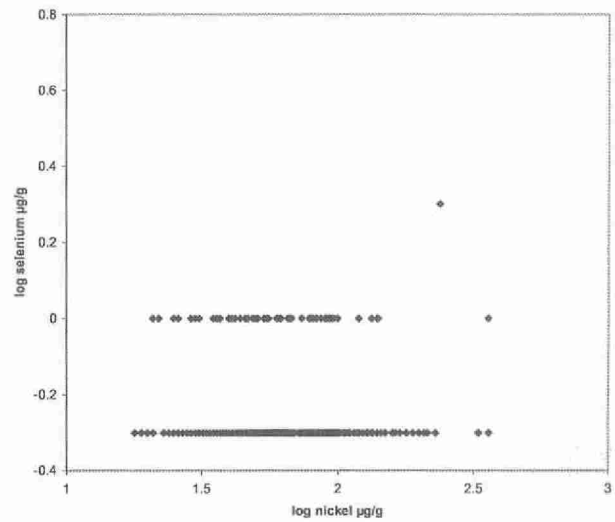


Fig. 10.4.2.18b: log Se vs. log Ni, 10-20 cm, Inner Com.

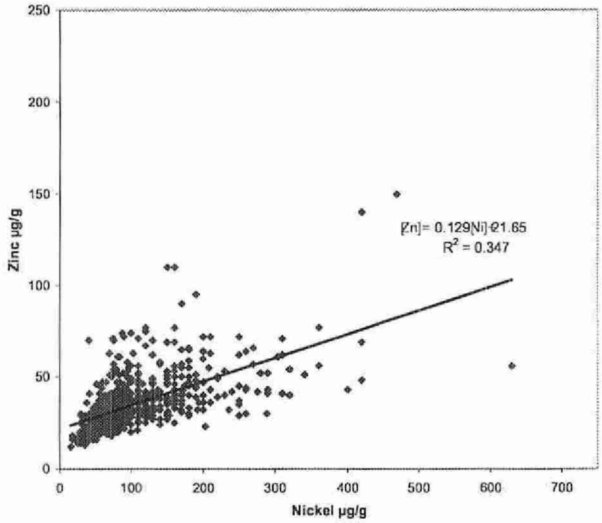


Fig. 10.4.2.19: Zn vs. Ni, 0-5 cm, Inner Com.

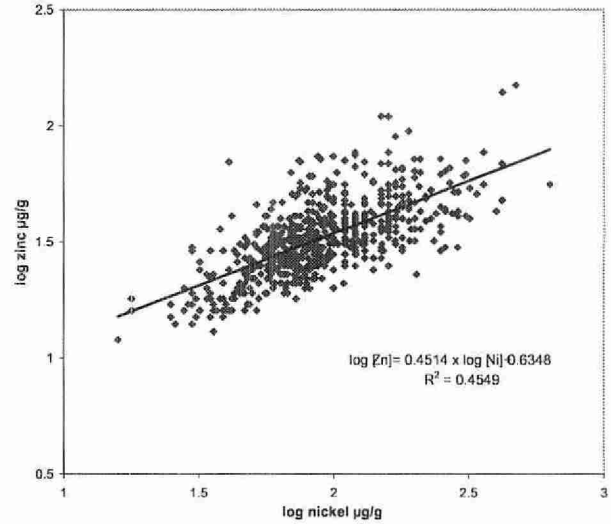


Fig. 10.4.2.19b: log Zn vs. log Ni, 0-5 cm, Inner Com.

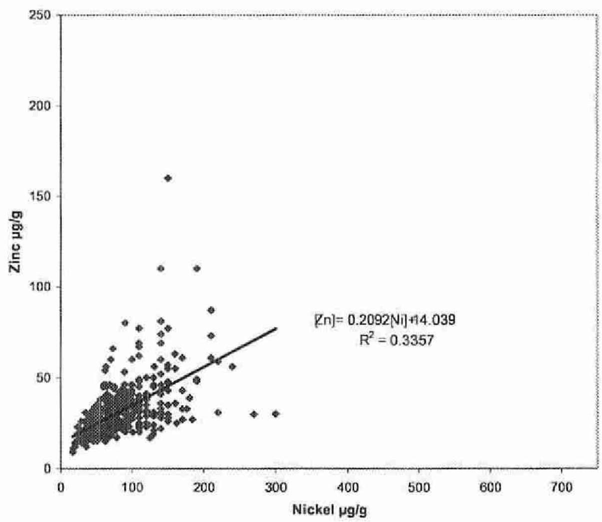


Fig. 10.4.2.20: Zn vs. Ni, 5-10 cm, Inner Com.

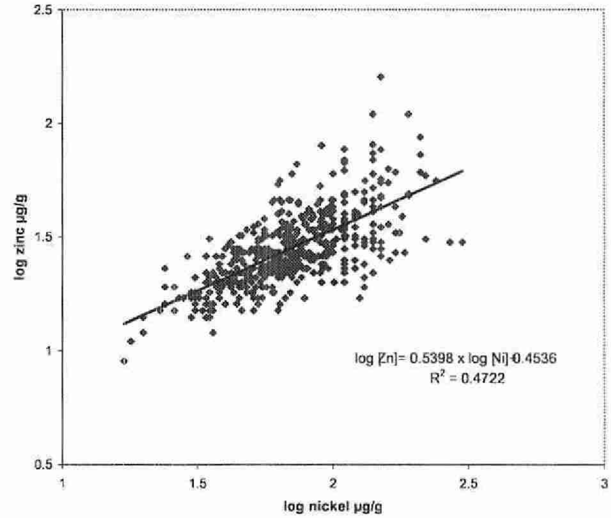


Fig. 10.4.2.20b: log Zn vs. log Ni, 5-10 cm, Inner Com.

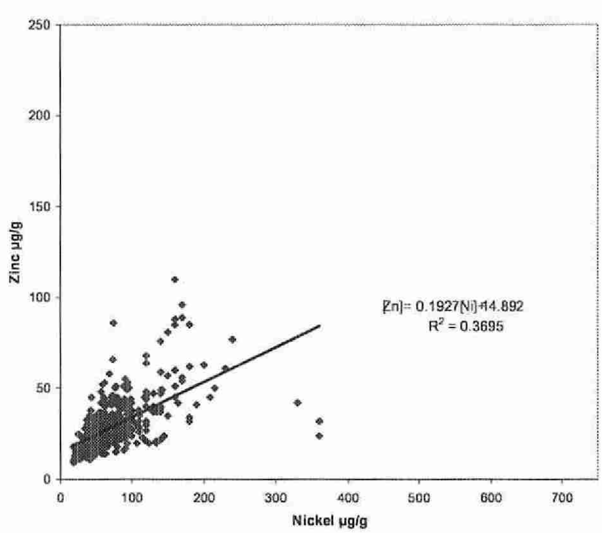


Fig. 10.4.2.21: Zn vs. Ni, 10-20 cm, Inner Com.

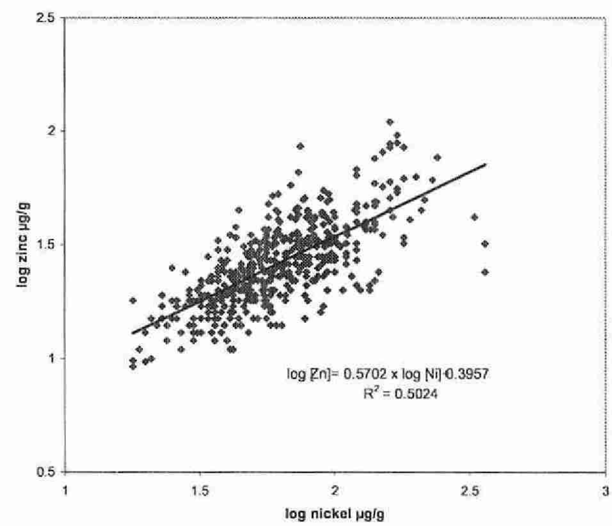


Fig. 10.4.2.21b: log Zn vs. log Ni, 10-20 cm, Inner Com.

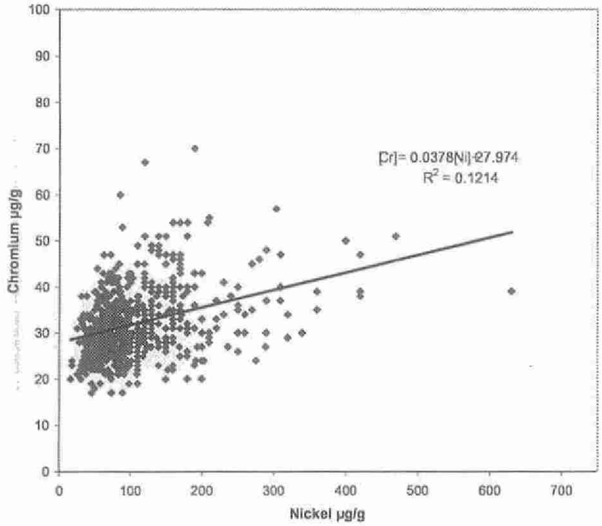


Fig. 10.4.2.22: Cr vs. Ni, 0-5 cm, Inner Com.

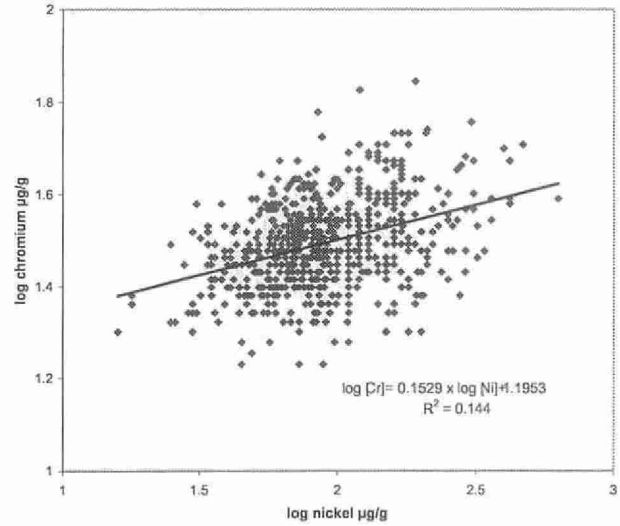


Fig. 10.4.2.22b: log Cr vs. log Ni, 0-5 cm, Inner Com.

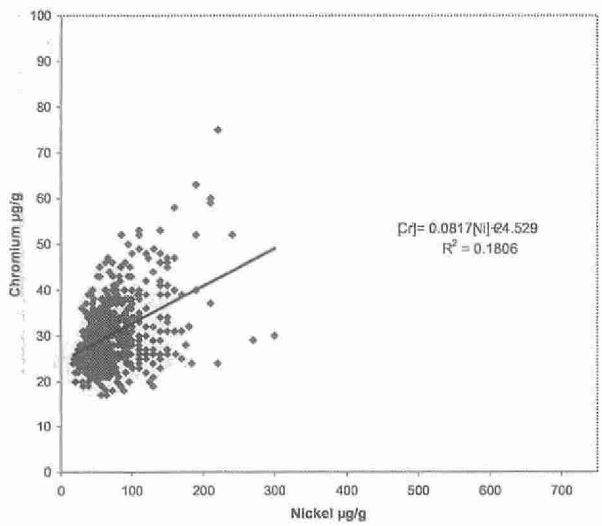


Fig. 10.4.2.23: Cr vs. Ni, 5-10 cm, Inner Com.

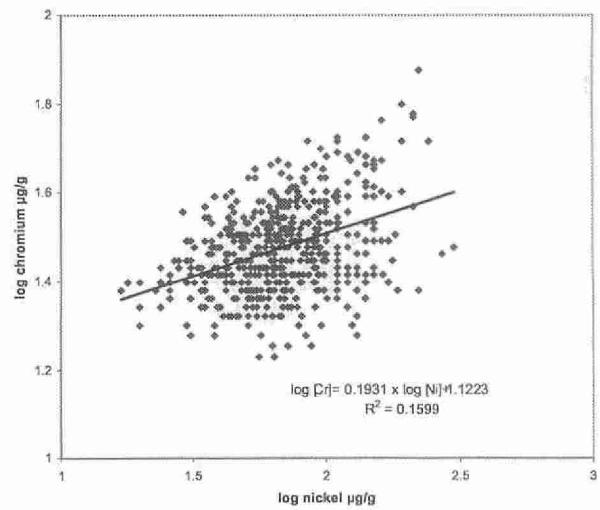


Fig. 10.4.2.23b: log Cr vs. log Ni, 5-10 cm, Inner Com.

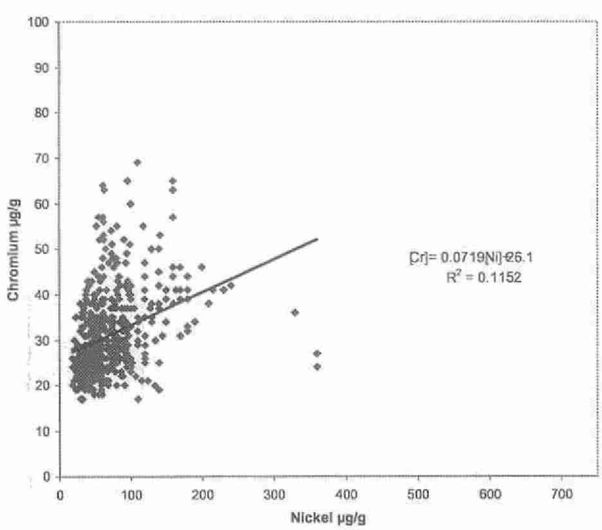


Fig. 10.4.2.24: Cr vs. Ni, 10-20 cm, Inner Com.

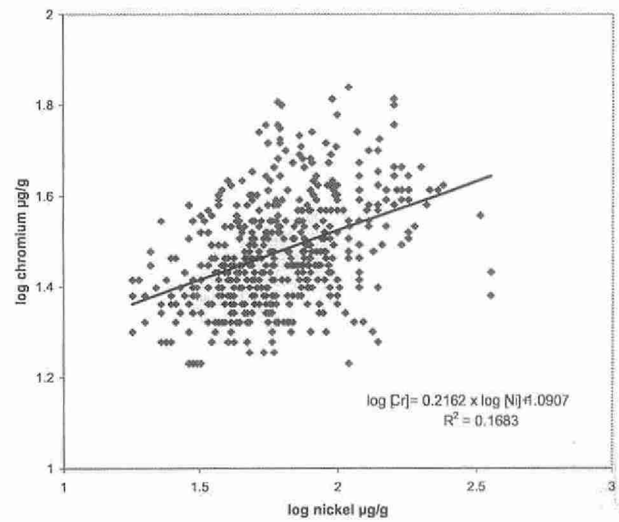


Fig. 10.4.2.24b: log Cr vs. log Ni, 10-20 cm, Inner Com.

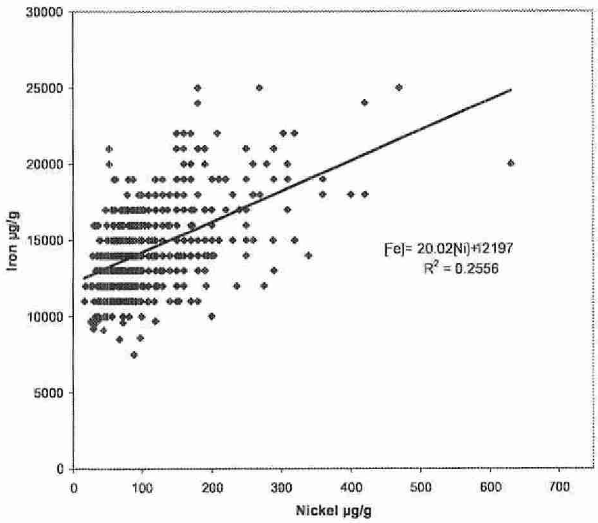


Fig. 10.4.2.25: Fe vs. Ni, 0-5 cm, Inner Com.

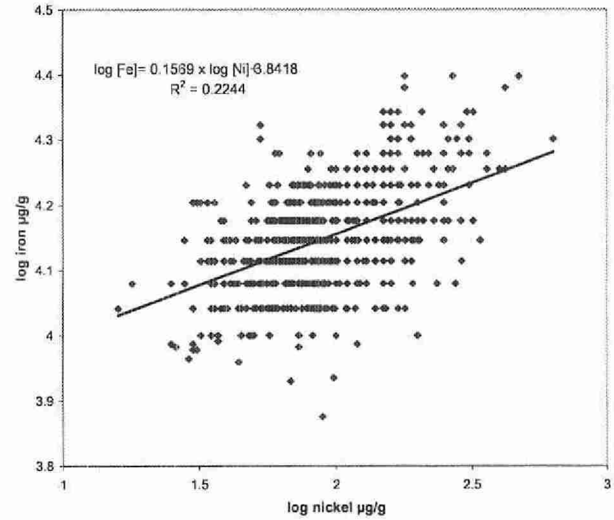


Fig. 10.4.2.25b: log Fe vs. log Ni, 0-5 cm, Inner Com.

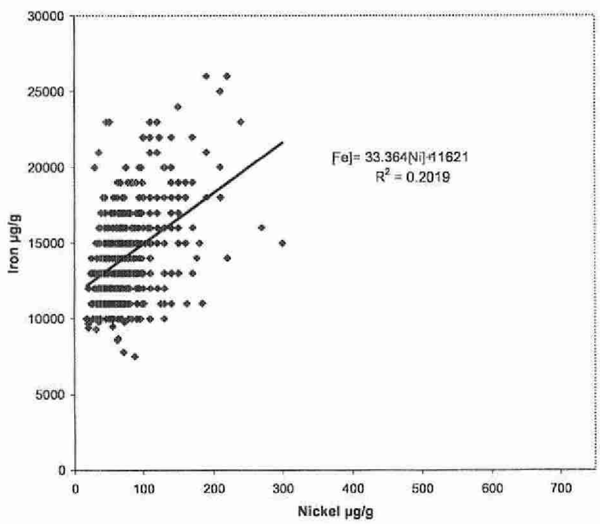


Fig. 10.4.2.26: Fe vs. Ni, 5-10 cm, Inner Com.

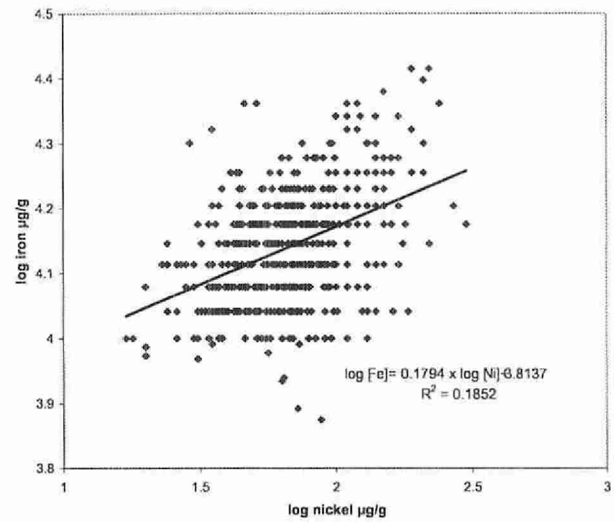


Fig. 10.4.2.26b: log Fe vs. log Ni, 5-10 cm, Inner Com.

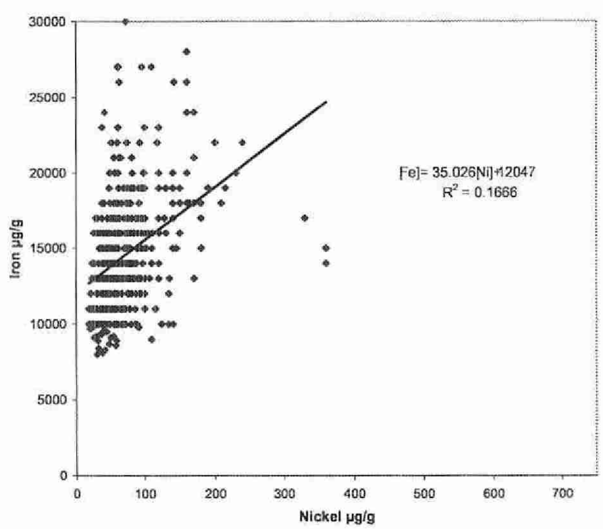


Fig. 10.4.2.27: Fe vs. Ni, 10-20 cm, Inner Com.

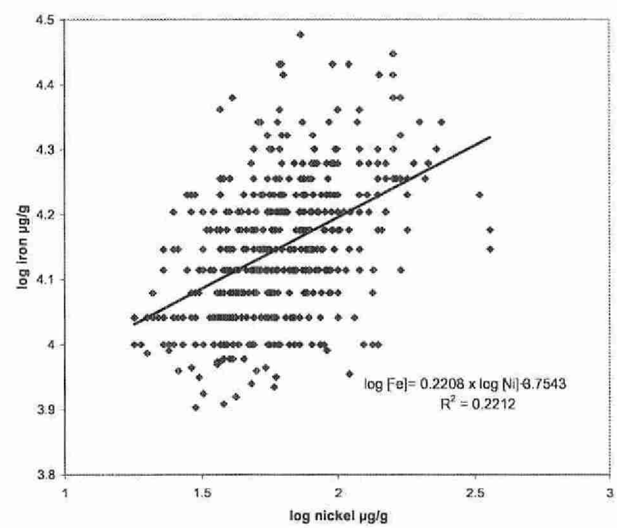


Fig. 10.4.2.27b: log Fe vs. log Ni, 10-20 cm, Inner Com.

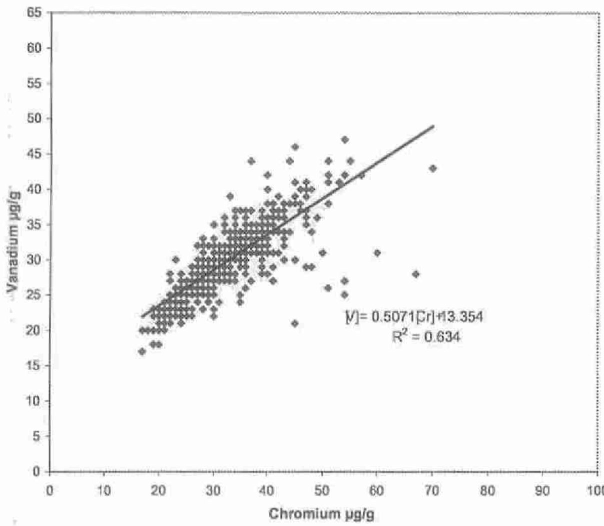


Fig. 10.4.2.28: V vs. Cr, 0-5 cm, Inner Com.

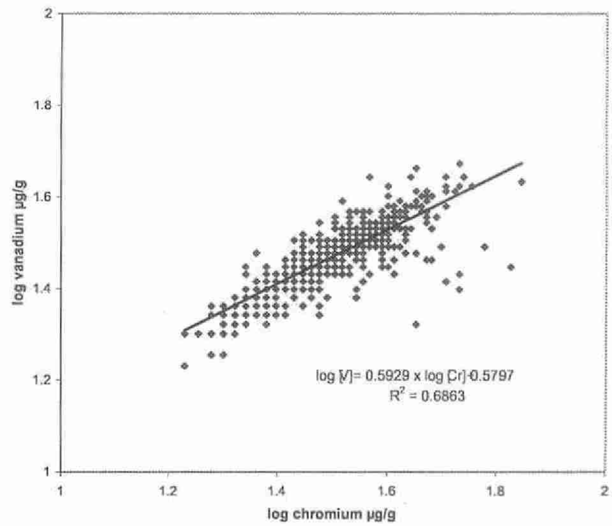


Fig. 10.4.2.28b: log V vs. log Cr, 0-5 cm, Inner Com.

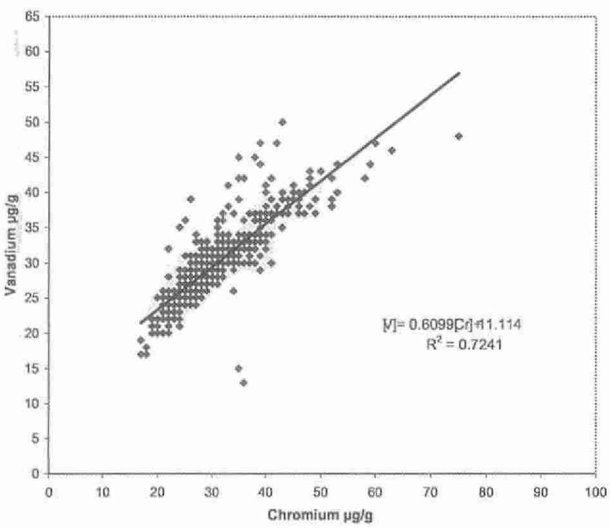


Fig. 10.4.2.29: V vs. Cr, 5-10 cm, Inner Com.

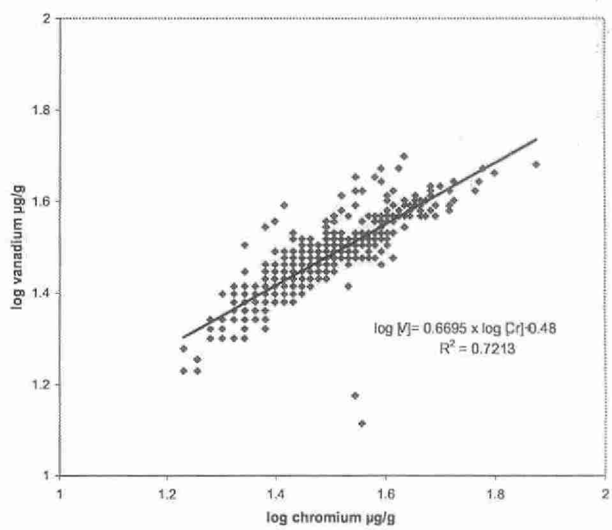


Fig. 10.4.2.29b: log V vs. log Cr, 5-10 cm, Inner Com.

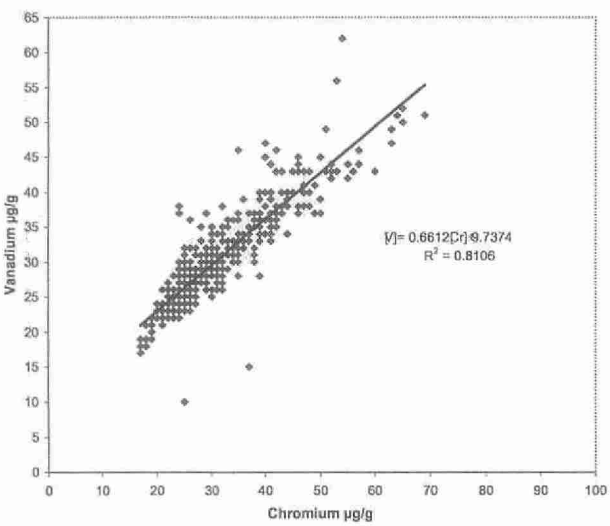


Fig. 10.4.2.30: V vs. Cr, 10-20 cm, Inner Com.

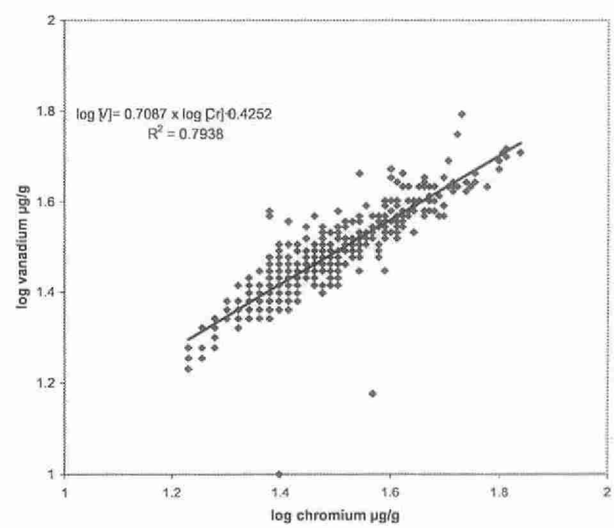


Fig. 10.4.2.30b: log V vs. log Cr, 10-20 cm, Inner Com.

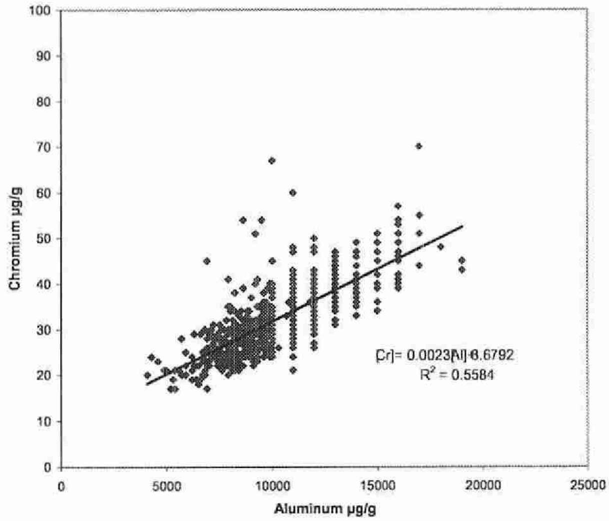


Fig. 10.4.2.31: Cr vs. Al, 0-5 cm, Inner Com.

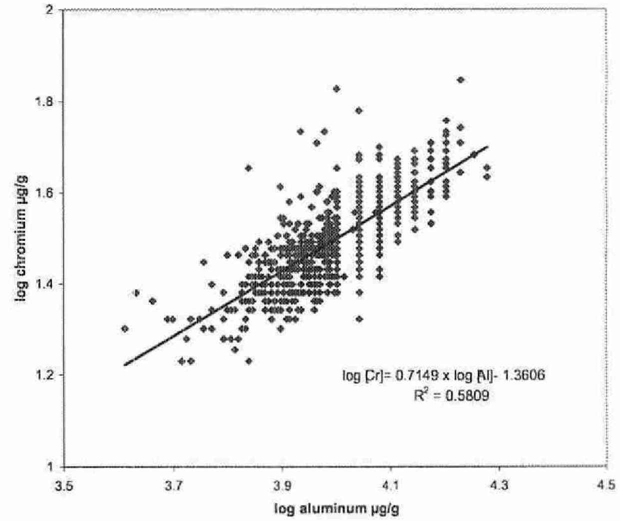


Fig. 10.4.2.31b: log Cr vs. log Al, 0-5 cm, Inner Com.

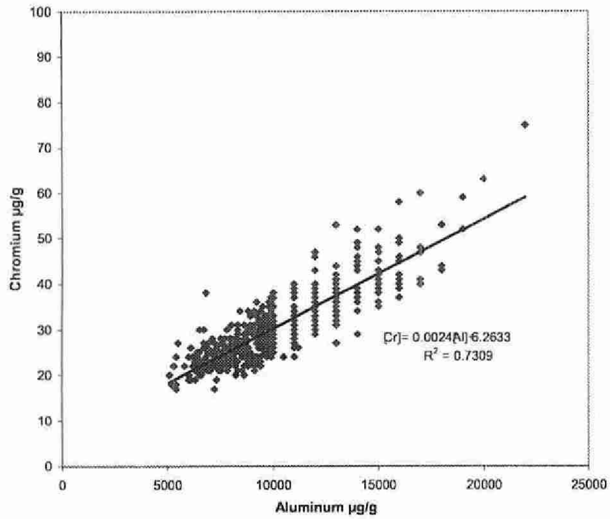


Fig. 10.4.2.32: Cr vs. Al, 5-10 cm, Inner Com.

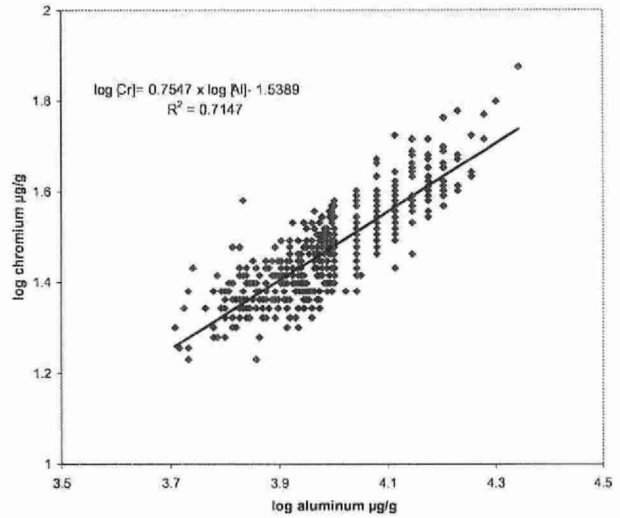


Fig. 10.4.2.32b: log Cr vs. log Al, 5-10 cm, Inner Com.

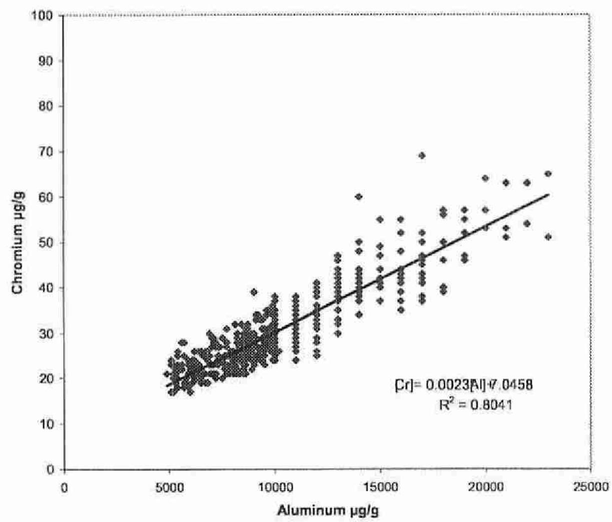


Fig. 10.4.2.33: Cr vs. Al, 10-20 cm, Inner Com.

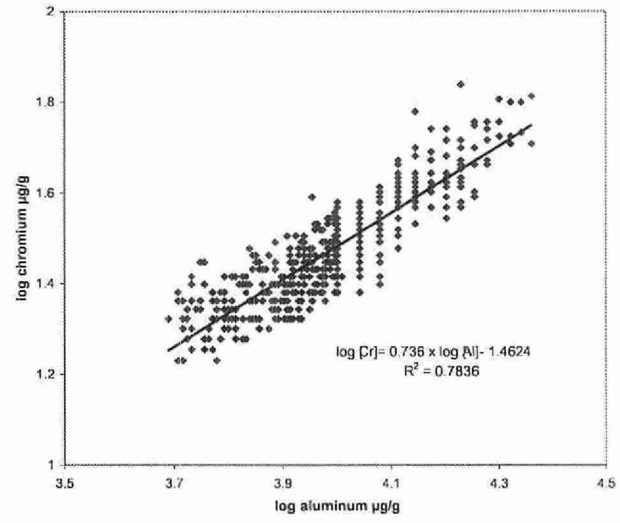


Fig. 10.4.2.33b: log Cr vs. log Al, 10-20 cm, Inner Com.

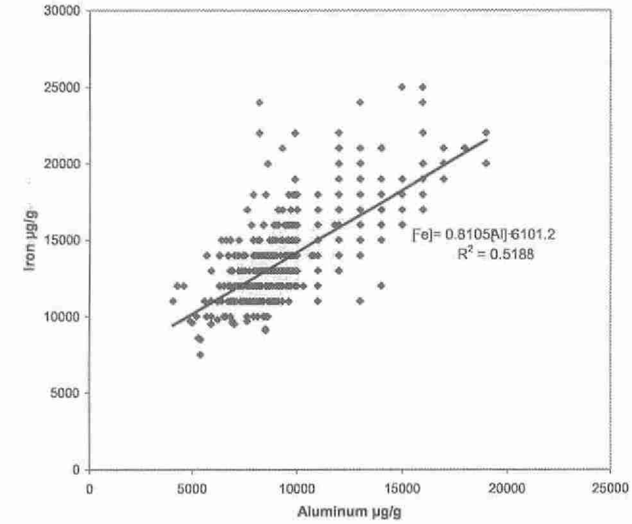


Fig. 10.4.2.34: Fe vs. Al, 0-5 cm, Inner Com.

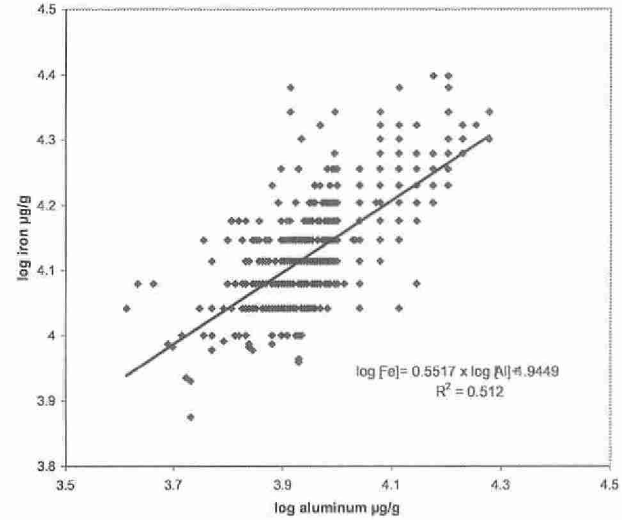


Fig. 10.4.2.34b: log Fe vs. log Al, 0-5 cm, Inner Com.

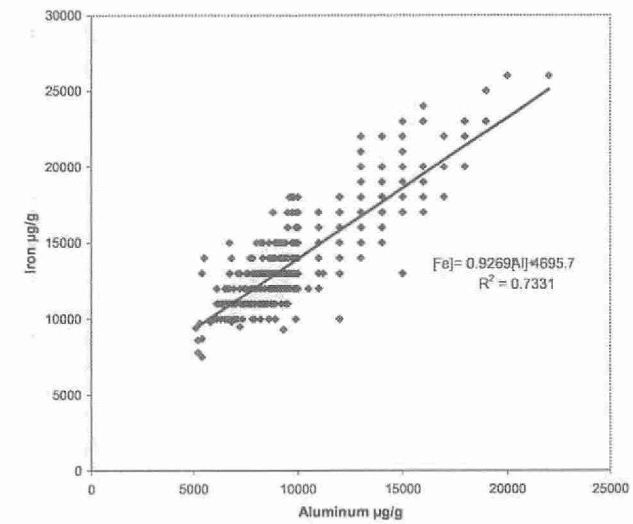


Fig. 10.4.2.35: Fe vs. Al, 5-10 cm, Inner Com.

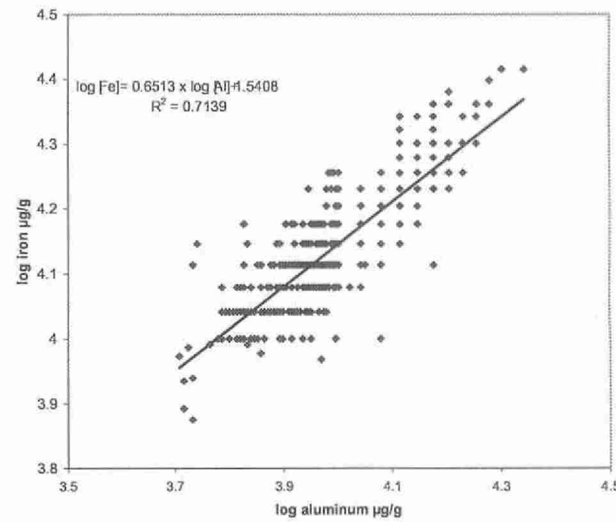


Fig. 10.4.2.35b: log Fe vs. log Al, 5-10 cm, Inner Com.

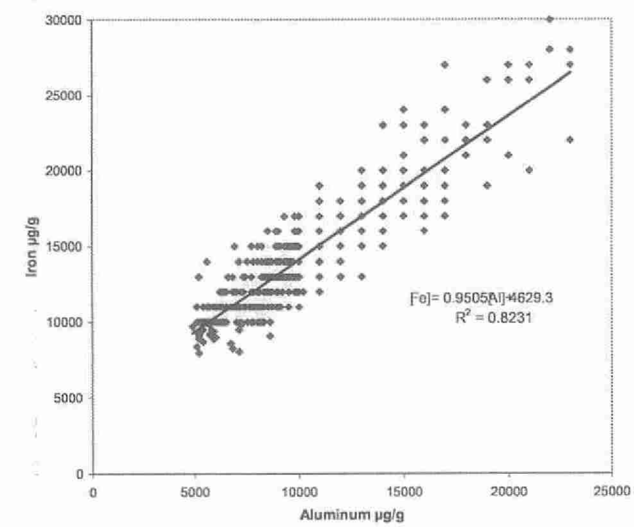


Fig. 10.4.2.36: Fe vs. Al, 10-20 cm, Inner Com.

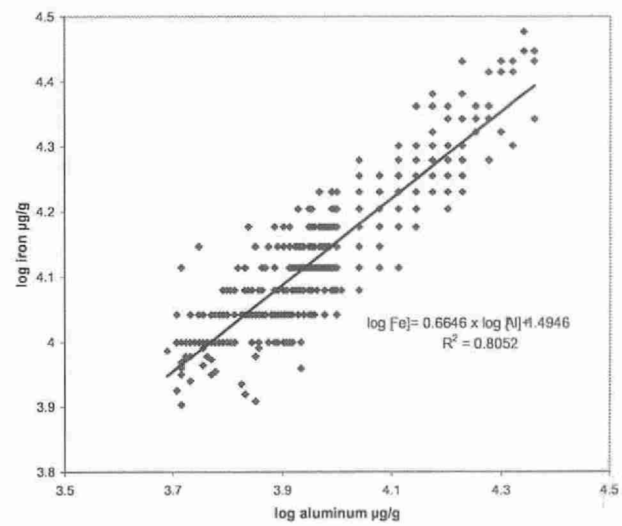


Fig. 10.4.2.36a: log Fe vs. log Al, 10-20 cm, Inner Com.

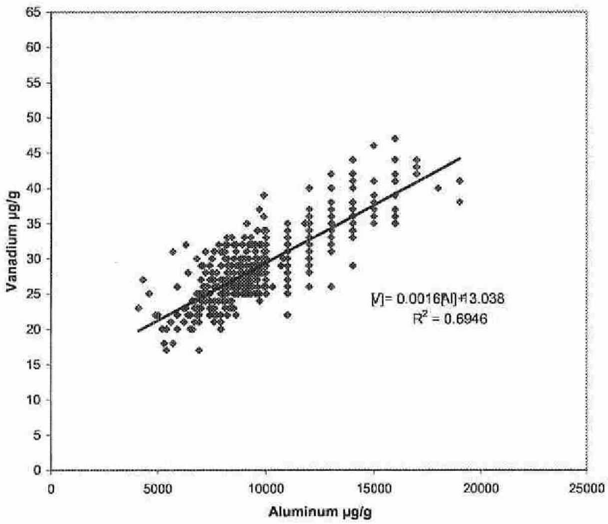


Fig. 10.4.2.37: V vs. Al, 0-5 cm, Inner Com.

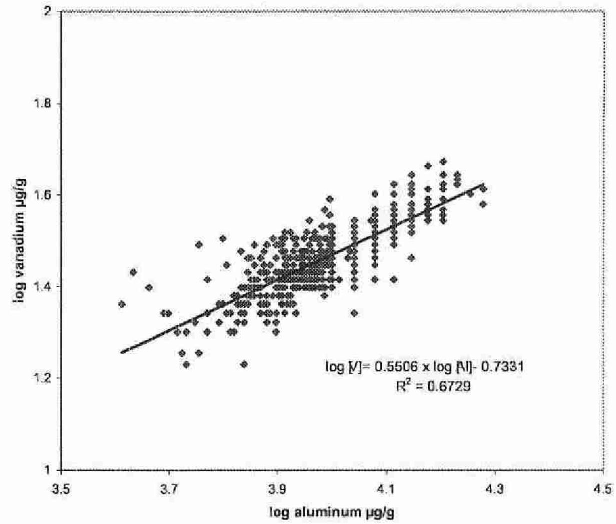


Fig. 10.4.2.37b: log V vs. log Al, 0-5 cm, Inner Com.

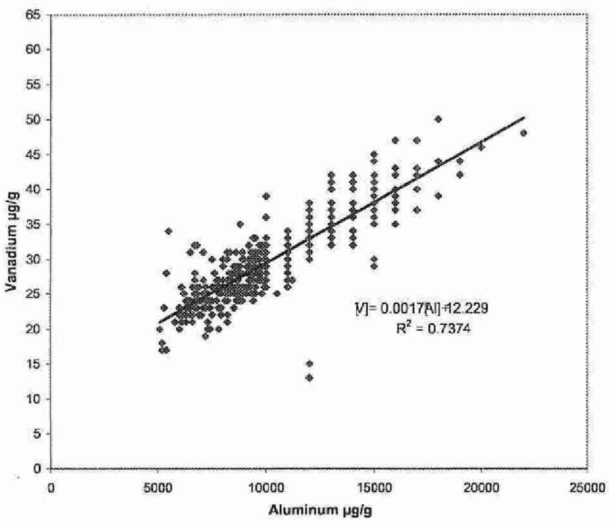


Fig. 10.4.2.38: V vs. Al, 5-10 cm, Inner Com.

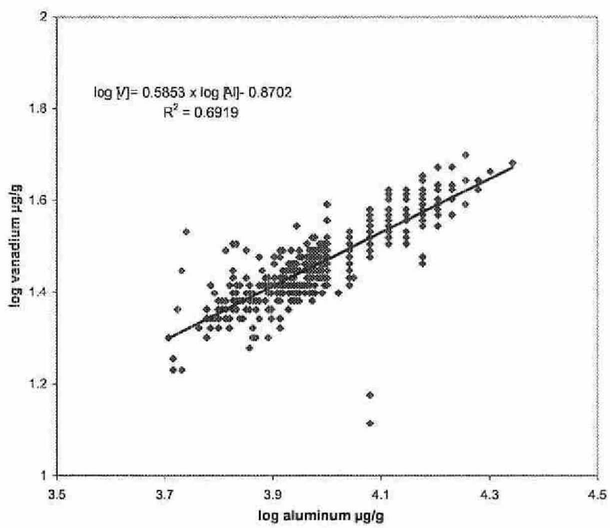


Fig. 10.4.2.38b: log V vs. log Al, 5-10 cm, Inner Com.

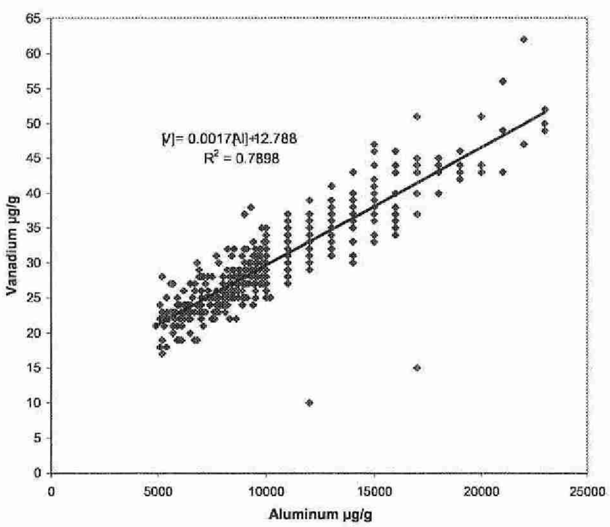


Fig. 10.4.2.39: V vs. Al, 10-20 cm, Inner Com.

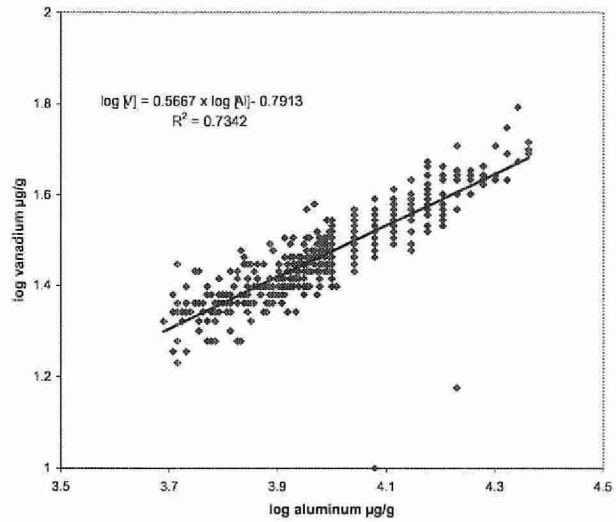


Fig. 10.4.2.39b: log V vs. log Al, 10-20 cm, Inner Com.

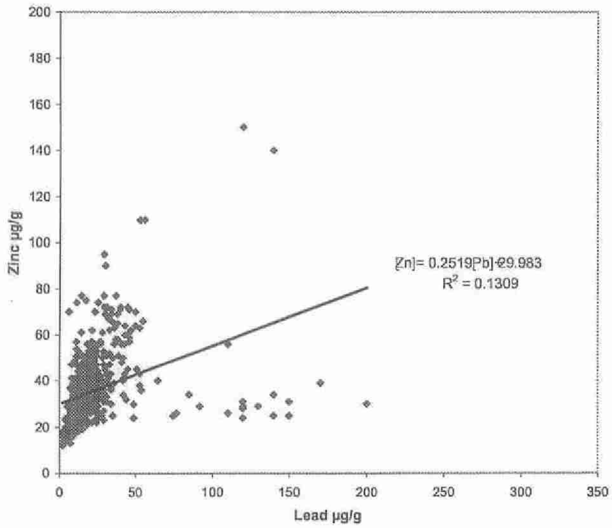


Fig. 10.4.2.40: Zn vs. Pb, 0-5 cm, Inner Com.

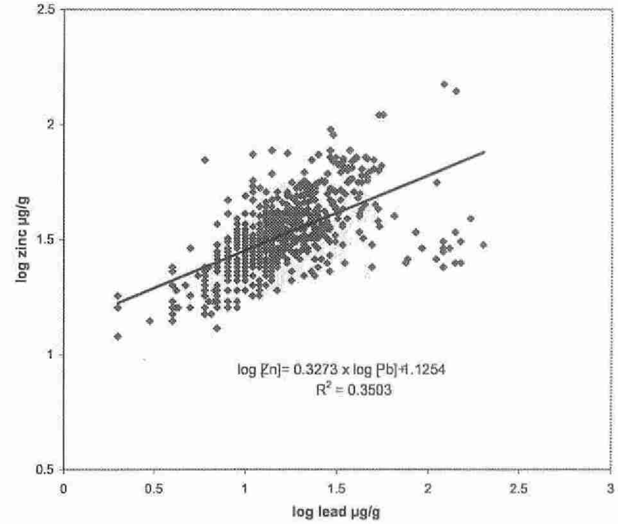


Fig. 10.4.2.40b: log Zn vs. log Pb, 0-5 cm, Inner Com.

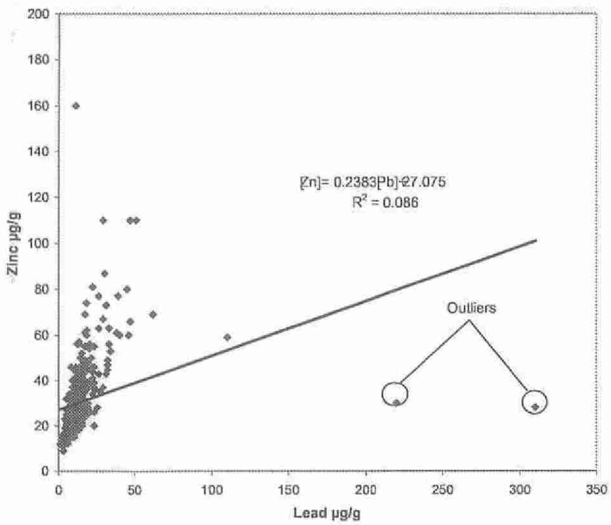


Fig. 10.4.2.41: Zn vs. Pb, 5-10 cm, Inner Com.

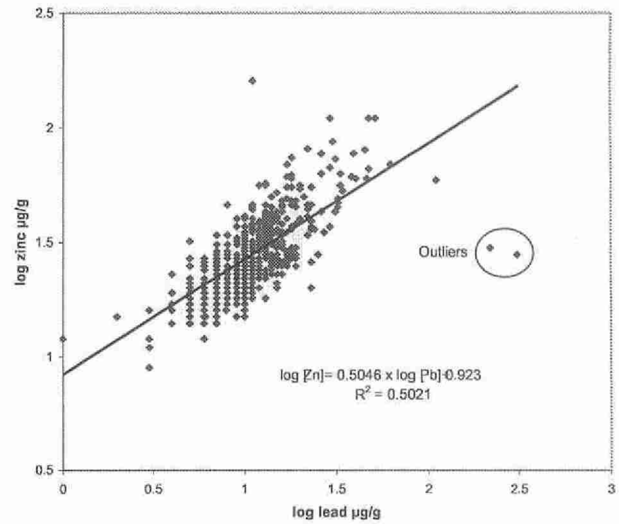


Fig. 10.4.2.41b: log Zn vs. log Pb, 5-10 cm, Inner Com.

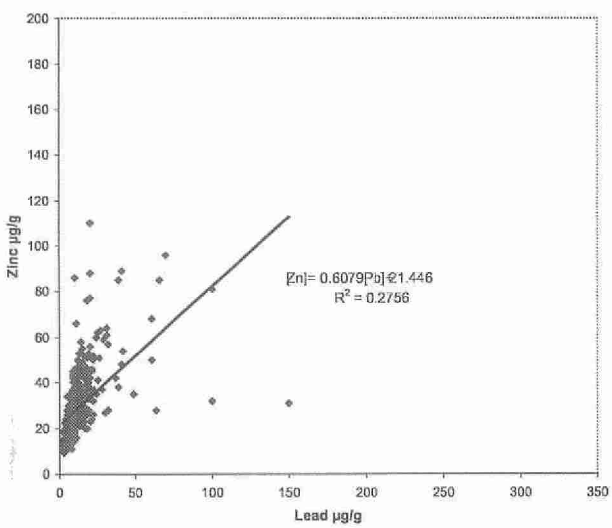


Fig. 10.4.2.42: Zn vs. Pb, 10-20 cm, Inner Com.

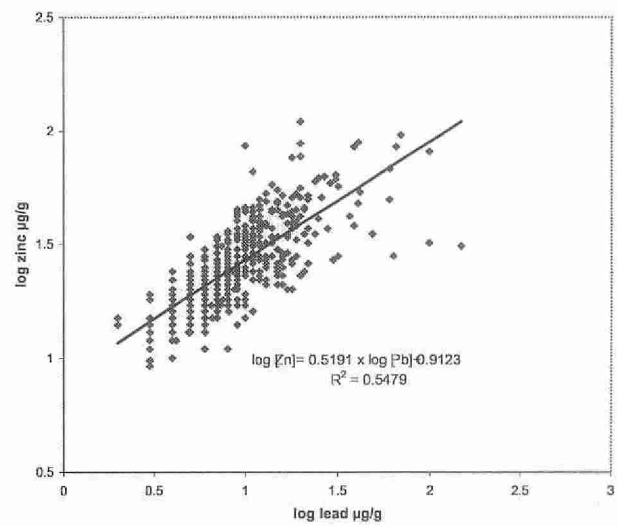


Fig. 10.4.2.42b: log Zn vs. log Pb, 10-20 cm, Inner Com.

Table 10.4.2.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Inner Sudbury Communities

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	0.1	0.16	0.74	0.08	0.45	0.76	0.27	0.21	0.70	0.14	0.47	0.63	0.09	0.23	0.05	0.78	0.81	0.39
Sb	0.04	1	0.02	0.06	0.18	0.02	0.07	0.00	0.05	0.04	0.14	0.04	0.03	0.30	0.04	-0.05	0.02	0.04	0.02
As	0.22	0.01	1	0.35	0.17	0.00	0.19	0.47	0.52	0.30	0.47	0.01	0.15	0.02	0.51	0.22	0.03	0.19	0.44
Ba	0.80	0.02	0.36	1	0.21	0.41	0.73	0.59	0.53	0.72	0.43	0.50	0.66	0.10	0.54	0.18	0.59	0.72	0.68
Cd	0.11	0.02	0.20	0.24	1	0.13	0.20	0.27	0.27	0.20	0.26	0.14	0.15	0.35	0.27	0.29	0.08	0.14	0.28
Ca	0.33	-0.01	0.01	0.25	0.11	1	0.50	0.20	0.12	0.34	0.13	0.69	0.57	0.02	0.2	0.01	0.71	0.41	0.25
Cr	0.75	0.06	0.22	0.71	0.27	0.36	1	0.47	0.33	0.76	0.31	0.63	0.70	0.07	0.35	0.13	0.64	0.84	0.50
Co	0.26	-0.02	0.45	0.49	0.36	0.07	0.40	1	0.77	0.63	0.65	0.44	0.44	0.03	0.81	0.29	0.15	0.43	0.69
Cu	0.24	0.00	0.50	0.47	0.49	0.07	0.34	0.78	1	0.39	0.83	0.16	0.25	0.04	0.95	0.36	0.09	0.22	0.67
Fe	0.72	0.02	0.36	0.73	0.27	0.24	0.72	0.66	0.49	1	0.28	0.66	0.73	0.09	0.4	0.15	0.51	0.86	0.58
Pb	0.10	0.44	0.22	0.22	0.28	0.04	0.39	0.35	0.46	0.18	1	0.08	0.20	0.04	0.81	0.30	0.07	0.13	0.63
Mg	0.37	-0.01	0.02	0.33	0.11	0.84	0.44	0.27	0.14	0.49	0.00	1	0.68	0.06	0.21	0.02	0.53	0.62	0.36
Mn	0.59	0.00	0.17	0.61	0.14	0.43	0.60	0.34	0.20	0.67	0.08	0.48	1	0.08	0.31	0.06	0.61	0.73	0.52
Mo	0.09	0.14	0.02	0.12	0.12	-0.01	0.11	0.01	0.01	0.08	-0.01	0.04	0.05	1	0	0.04	0.04	0.11	0.10
Ni	0.24	0.00	0.52	0.48	0.48	0.10	0.35	0.84	0.92	0.51	0.44	0.16	0.22	0.00	1	0.35	0.13	0.23	0.67
Se	0.07	-0.04	0.16	0.21	0.47	0.01	0.16	0.40	0.50	0.20	0.29	0.02	0.07	0.01	0.51	1	0.01	0.07	0.24
Sr	0.60	0.03	0.01	0.47	0.07	0.65	0.46	0.08	0.08	0.37	0.04	0.55	0.44	0.02	0.12	-0.01	1	0.68	0.27
V	0.83	0.04	0.23	0.74	0.18	0.30	0.80	0.37	0.24	0.86	0.07	0.46	0.68	0.11	0.25	0.08	0.51	1	0.47
Zn	0.43	-0.03	0.43	0.67	0.38	0.18	0.50	0.62	0.63	0.62	0.36	0.27	0.47	0.06	0.59	0.29	0.22	0.47	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.2.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Inner Sudbury Communities																			
	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	0.03	0.18	0.82	0.10	0.46	0.84	0.51	0.36	0.84	0.28	0.56	0.65	0.1	0.34	0	0.80	0.86	0.53
Sb	-0.01	1	0.05	0.10	0.55	0.05	0.04	0.08	0.08	0.10	0.16	0.07	0.1	0.47	0.06	-0.02	0.00	0.07	0.14
As	0.19	0.04	1	0.32	0.13	0.06	0.13	0.42	0.58	0.26	0.47	0.07	0.2	0.05	0.58	0.02	0.07	0.21	0.39
Ba	0.86	0.00	0.27	1	0.16	0.47	0.81	0.70	0.59	0.81	0.51	0.59	0.68	0.11	0.56	0.11	0.67	0.77	0.74
Cd	0.14	0.08	0.20	0.19	1	0.12	0.12	0.17	0.18	0.17	0.20	0.15	0.18	0.55	0.16	0.00	0.08	0.15	0.21
Ca	0.28	0.00	0.10	0.25	0.22	1	0.62	0.34	0.15	0.48	0.21	0.75	0.66	0.03	0.24	-0.03	0.74	0.53	0.38
Cr	0.85	0.00	0.13	0.84	0.19	0.43	1	0.61	0.33	0.85	0.31	0.78	0.79	0.05	0.36	0.07	0.78	0.88	0.61
Co	0.59	0.01	0.41	0.71	0.20	0.23	0.65	1	0.68	0.71	0.59	0.56	0.57	0.09	0.72	0.06	0.37	0.60	0.74
Cu	0.47	0.02	0.54	0.64	0.20	0.08	0.46	0.74	1	0.43	0.79	0.18	0.27	0.11	0.93	0.14	0.19	0.32	0.71
Fe	0.86	0.01	0.22	0.82	0.20	0.30	0.84	0.73	0.52	1	0.34	0.73	0.78	0.12	0.40	0.04	0.67	0.90	0.66
Pb	0.14	0.82	0.17	0.22	0.07	0.04	0.17	0.24	0.29	0.14	1	0.17	0.31	0.12	0.76	0.13	0.17	0.25	0.74
Mg	0.50	0.00	0.08	0.49	0.19	0.81	0.67	0.48	0.23	0.63	0.07	1	0.76	0.09	0.24	-0.02	0.61	0.70	0.49
Mn	0.67	0.01	0.21	0.68	0.28	0.47	0.77	0.61	0.37	0.80	0.14	0.64	1	0.09	0.31	-0.04	0.69	0.75	0.61
Mo	0.07	0.05	0.02	0.08	0.28	-0.02	0.03	0.06	0.06	0.13	0.01	0.05	0.09	1	0.07	0.00	0.03	0.10	0.10
Ni	0.43	0.00	0.55	0.58	0.19	0.15	0.42	0.77	0.88	0.45	0.25	0.23	0.37	0.04	1	0.10	0.23	0.32	0.69
Se	0.03	-0.04	0.03	0.09	-0.01	-0.05	0.04	0.11	0.21	0.04	0.05	-0.05	0	-0.01	0.15	1	0.04	0.06	0.07
Sr	0.77	-0.04	0.06	0.64	0.15	0.58	0.74	0.38	0.22	0.64	0.04	0.54	0.65	0.02	0.25	0.03	1	0.76	0.40
V	0.86	-0.01	0.20	0.79	0.21	0.35	0.85	0.61	0.40	0.91	0.11	0.58	0.75	0.12	0.36	0.05	0.74	1	0.56
Zn	0.50	0.05	0.31	0.67	0.27	0.24	0.58	0.64	0.62	0.56	0.29	0.38	0.56	0.03	0.58	0.07	0.35	0.48	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.2.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Inner Sudbury Communities

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.04*	*0.30*	*0.89*	*0.08*	*0.54*	*0.88*	*0.68*	*0.51*	*0.89*	*0.46*	*0.64*	*0.75*	*0.09*	*0.49*	*0.04*	*0.83*	*0.89*	*0.70*
Sb	0.03	1	*0.07*	*0.05*	*0.43*	*0.02*	*0.01*	*0.02*	*0.07*	*0.05*	*0.14*	*0.02*	*0.04*	*0.42*	*0.02*	*0.01*	*0*	*0.06*	*0.06*
As	0.23	0.04	1	*0.34*	*0.15*	*0.15*	*0.22*	*0.44*	*0.63*	*0.32*	*0.55*	*0.12*	*0.24*	*0.09*	*0.60*	*-0.01*	*0.2*	*0.28*	*0.48*
Ba	0.91	0.03	0.23	1	*0.09*	*0.56*	*0.86*	*0.73*	*0.59*	*0.85*	*0.52*	*0.67*	*0.77*	*0.08*	*0.56*	*0.05*	*0.76*	*0.84*	*0.76*
Cd	0.07	0.08	0.21	0.05	1	*0.09*	*0.08*	*0.10*	*0.13*	*0.11*	*0.17*	*0.11*	*0.13*	*0.49*	*0.10*	*0.01*	*0.1*	*0.12*	*0.17*
Ca	0.36	0.00	0.18	0.31	0.19	1	*0.66*	*0.41*	*0.23*	*0.55*	*0.29*	*0.77*	*0.73*	*0.03*	*0.26*	*-0.04*	*0.76*	*0.59*	*0.47*
Cr	0.90	0.01	0.15	0.87	0.09	0.48	1	*0.72*	*0.42*	*0.90*	*0.40*	*0.84*	*0.86*	*0.07*	*0.42*	*0.06*	*0.81*	*0.91*	*0.70*
Co	0.64	0.00	0.52	0.67	0.08	0.24	0.64	1	*0.70*	*0.81*	*0.65*	*0.63*	*0.69*	*0.07*	*0.71*	*0.02*	*0.5*	*0.72*	*0.78*
Cu	0.44	0.02	0.67	0.48	0.12	0.10	0.36	0.76	1	*0.52*	*0.82*	*0.25*	*0.38*	*0.13*	*0.92*	*0.04*	*0.33*	*0.44*	*0.75*
Fe	0.91	0.04	0.23	0.86	0.10	0.37	0.91	0.73	0.46	1	*0.46*	*0.79*	*0.83*	*0.12*	*0.47*	*0.05*	*0.73*	*0.94*	*0.75*
Pb	0.19	0.55	0.33	0.26	0.16	0.10	0.18	0.39	0.45	0.21	1	*0.24*	*0.43*	*0.14*	*0.81*	*-0.04*	*0.35*	*0.38*	*0.77*
Mg	0.66	0.00	0.09	0.64	0.11	0.76	0.81	0.50	0.19	0.76	0.07	1	*0.80*	*0.08*	*0.24*	*0.03*	*0.65*	*0.77*	*0.55*
Mn	0.77	0.01	0.18	0.77	0.16	0.56	0.84	0.62	0.33	0.83	0.21	0.75	1	*0.07*	*0.38*	*0.00*	*0.76*	*0.82*	*0.72*
Mo	0.03	0.04	0.02	-0.01	0.04	-0.02	0.03	-0.01	0.04	0.03	0.03	-0.01	-0.03	1	*0.07*	*0.07*	*0*	*0.12*	*0.12*
Ni	0.41	0.01	0.67	0.45	0.11	0.15	0.34	0.75	0.92	0.41	0.43	0.18	0.32	0.00	1	*0.03*	*0.34*	*0.40*	*0.71*
Se	0.04	0.00	0.03	0.02	0.06	-0.03	0.04	0.06	0.08	0.05	-0.05	0.02	0.00	0.13	0.08	1	*0.1*	*0.06*	*-0.01*
Sr	0.81	0.00	0.17	0.72	0.10	0.64	0.78	0.44	0.26	0.71	0.15	0.65	0.76	-0.01	0.27	0.05	1	*0.80*	*0.57*
V	0.89	0.03	0.19	0.83	0.11	0.42	0.90	0.63	0.34	0.94	0.16	0.74	0.83	0.03	0.31	0.06	0.78	1	*0.69*
Zn	0.64	0.05	0.38	0.71	0.27	0.34	0.63	0.69	0.64	0.66	0.53	0.47	0.68	0.03	0.61	0.01	0.52	0.59	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.3 Sudbury Core

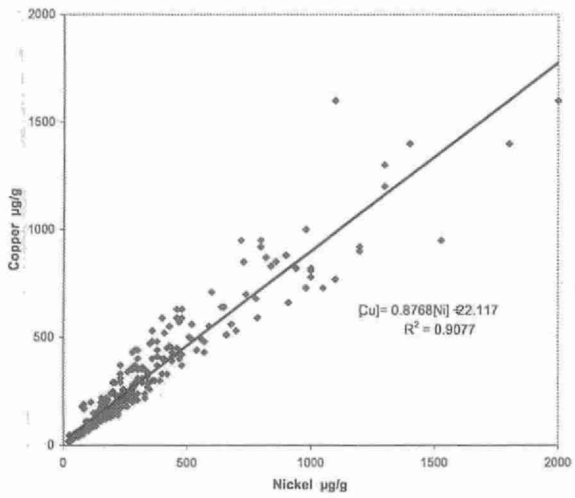


Fig. 10.4.3.1: Cu vs. Ni, 0-5 cm, Sudbury Core

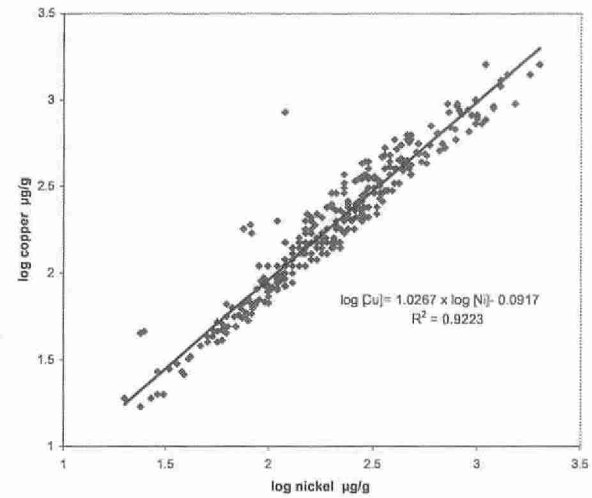


Fig. 10.4.3.1b: log Cu vs. log Ni, 0-5 cm, Sudbury Core

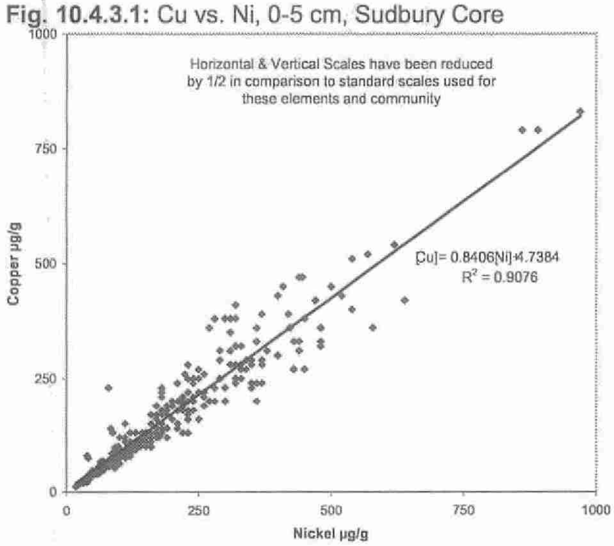


Fig. 10.4.3.2: Cu vs. Ni, 5-10 cm, Sudbury Core

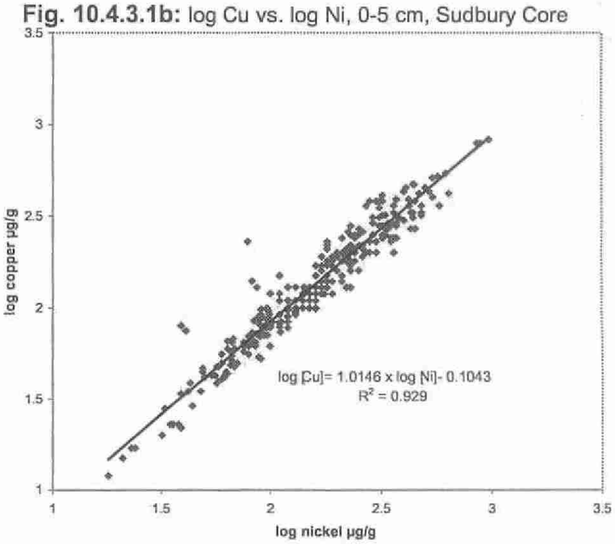


Fig. 10.4.3.2b: log Cu vs. log Ni, 5-10 cm, Sudbury Core

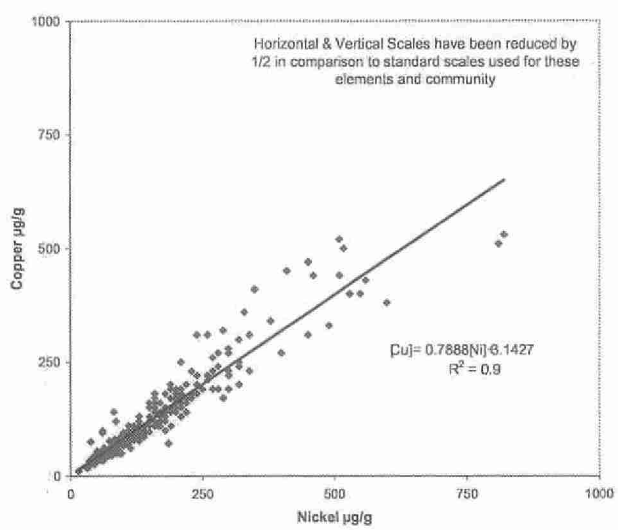


Fig. 10.4.3.3: Cu vs. Ni, 10-20 cm, Sudbury Core

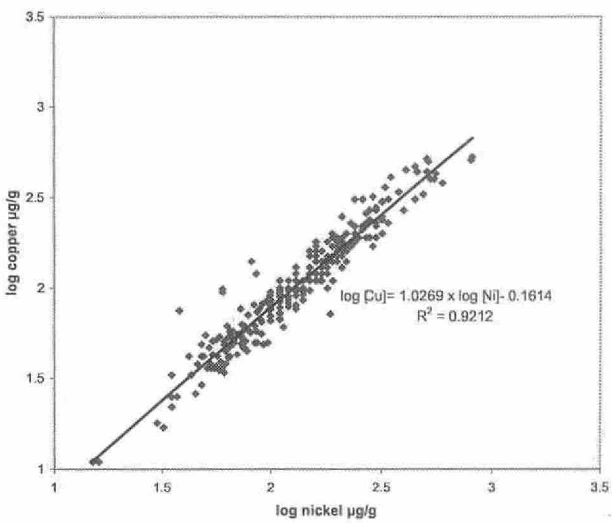


Fig. 10.4.3.3b: log Cu vs. log Ni, 10-20 cm, Sudbury Core

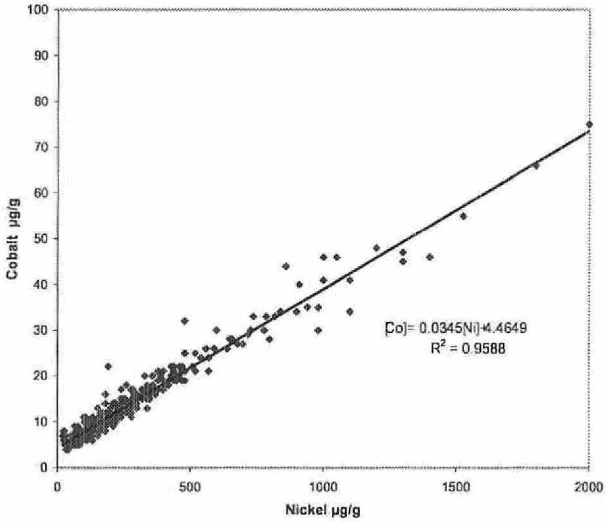


Fig. 10.4.3.4: Co vs. Ni, 0-5 cm, Sudbury Core

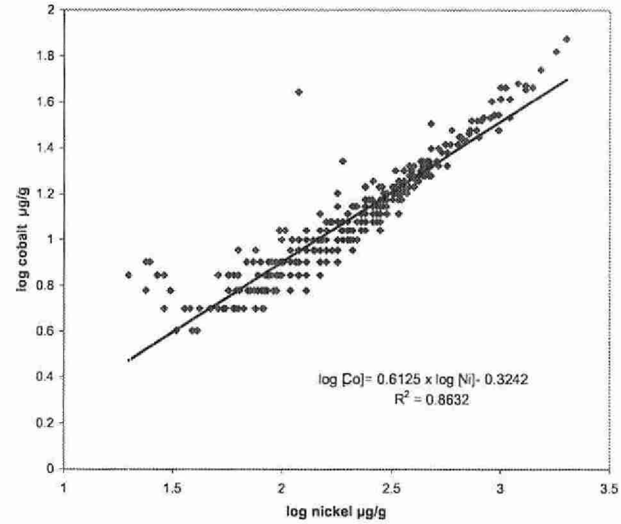


Fig. 10.4.3.4b: log Co vs. log Ni, 0-5 cm, Sudbury Core

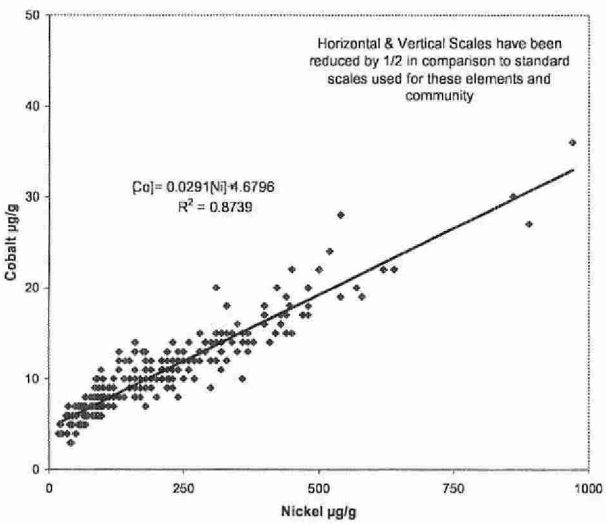


Fig. 10.4.3.5: Co vs. Ni, 5-10 cm, Sudbury Core

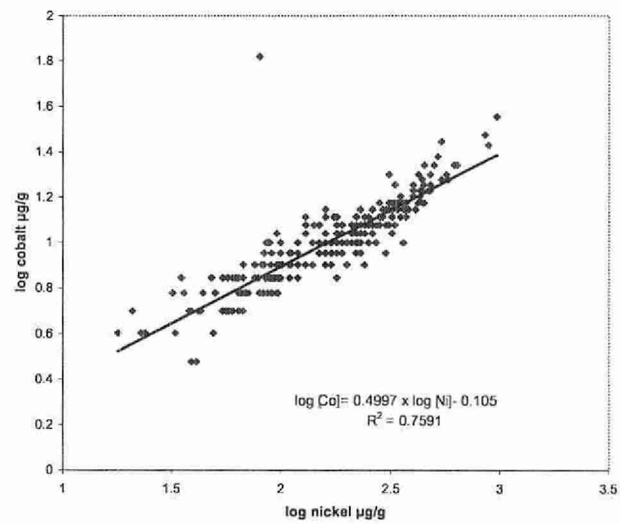


Fig. 10.4.3.5b: log Co vs. log Ni, 5-10 cm, Sudbury Core

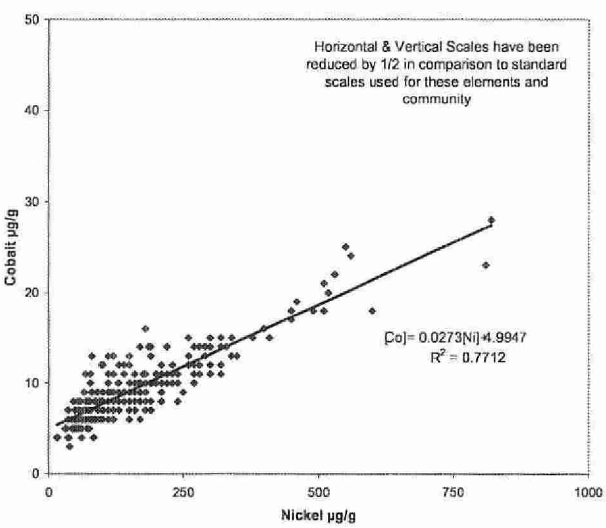


Fig. 10.4.3.6: Co vs. Ni, 10-20 cm, Sudbury Core

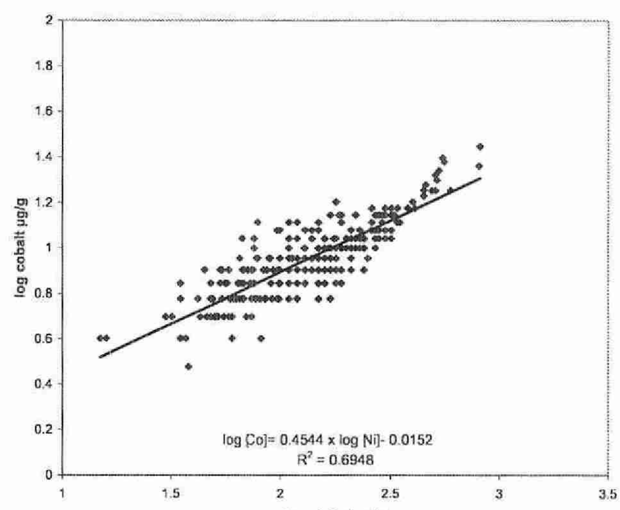


Fig. 10.4.3.6a: log Co vs. log Ni, 10-20 cm, Sudbury Core

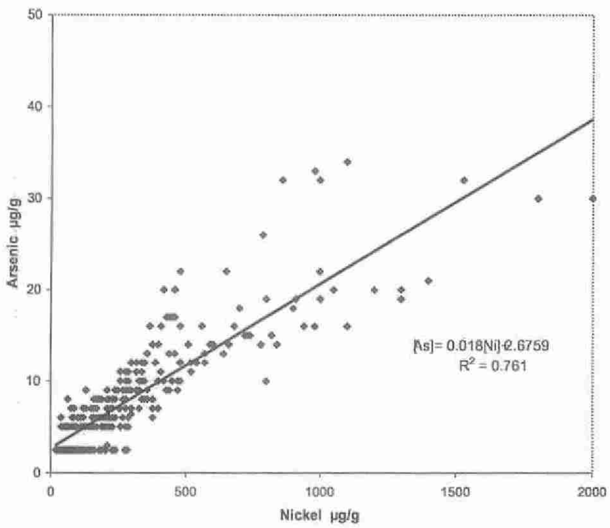


Fig. 10.4.3.7: As vs. Ni, 0-5 cm, Sudbury Core

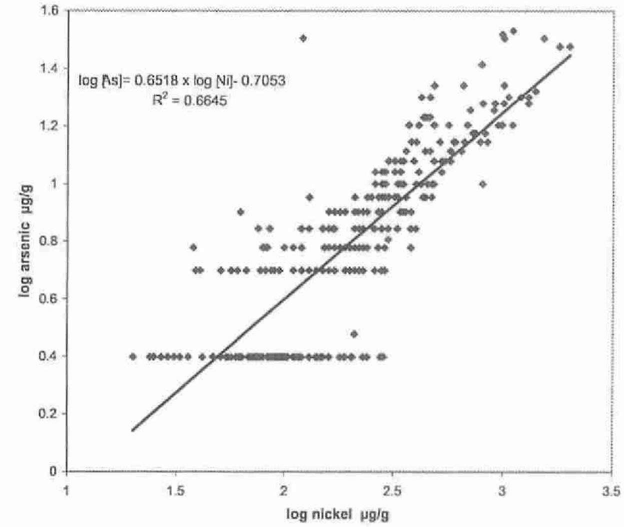


Fig. 10.4.3.7b: log As vs. log Ni, 0-5 cm, Sudbury Core

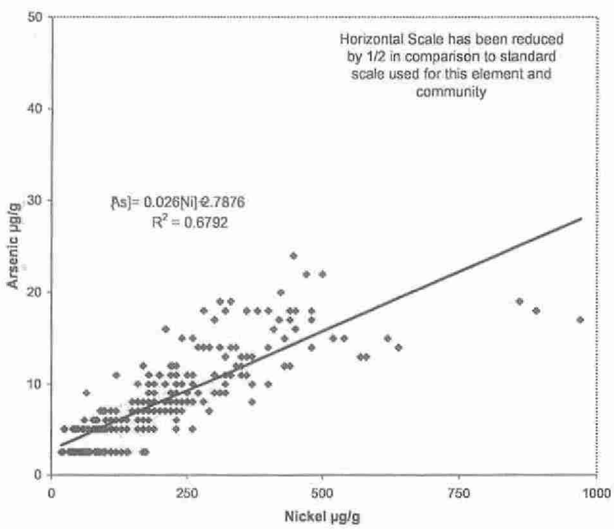


Fig. 10.4.3.8: As vs. Ni, 5-10 cm, Sudbury Core

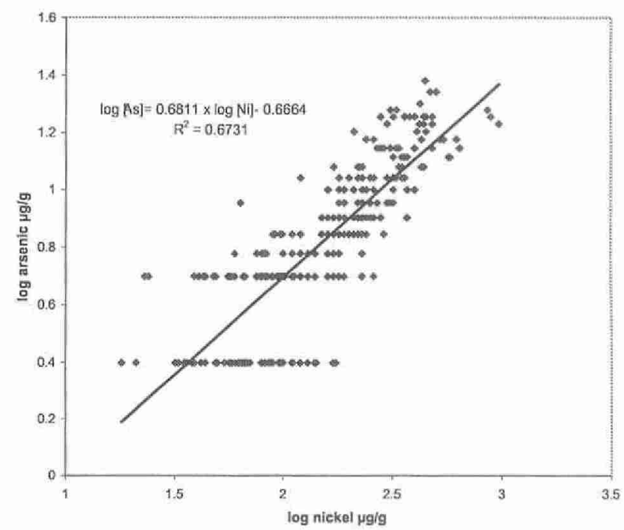


Fig. 10.4.3.8b: log As vs. log Ni, 5-10 cm, Sudbury Core

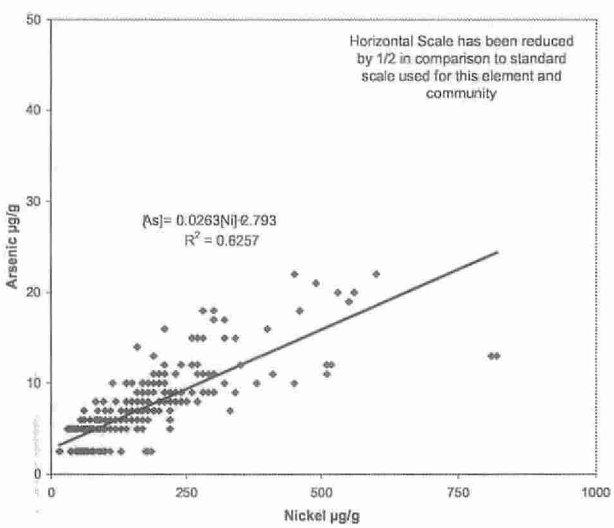


Fig. 10.4.3.9: As vs. Ni, 10-20 cm, Sudbury Core

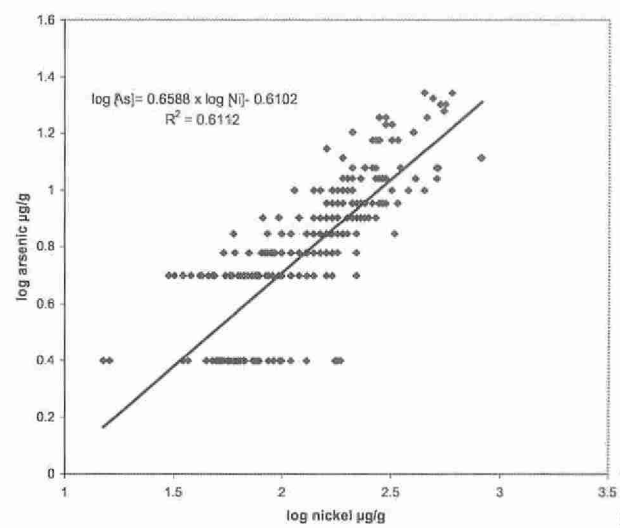


Fig. 10.4.3.9b: log As vs. log Ni, 10-20 cm, Sudbury Core

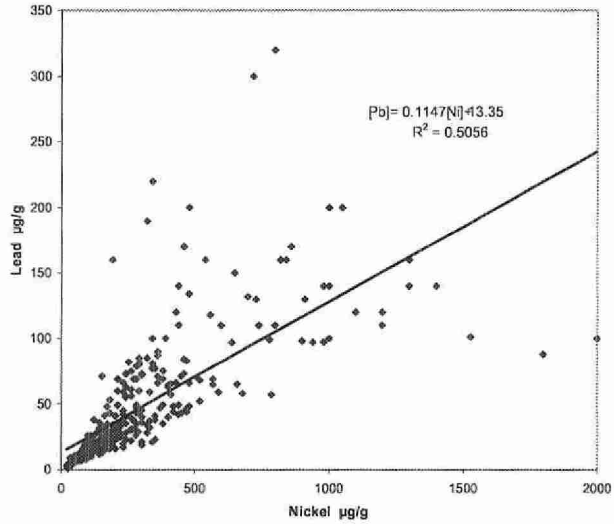


Fig. 10.4.3.10: Pb vs. Ni, 0-5 cm, Sudbury Core

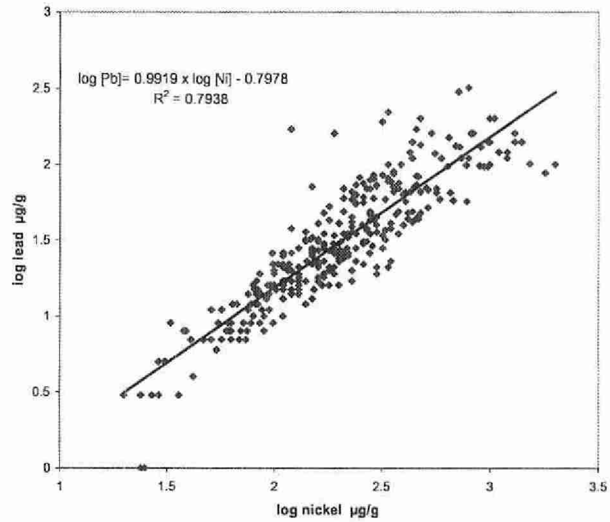


Fig. 10.4.3.10b: log Pb vs. log Ni, 0-5 cm, Sudbury Core

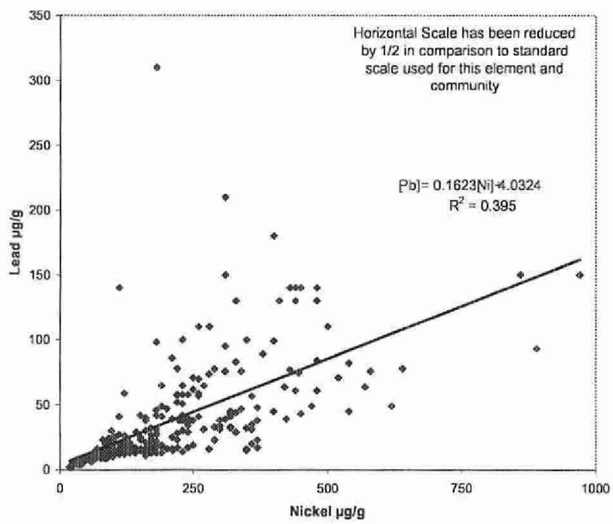


Fig. 10.4.3.11: Pb vs. Ni, 5-10 cm, Sudbury Core

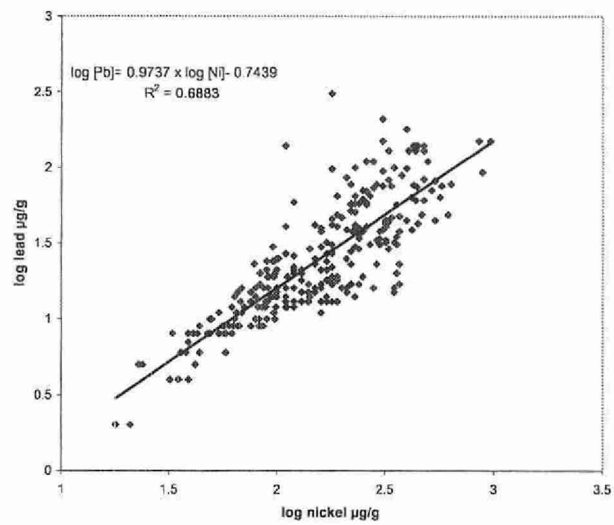


Fig. 10.4.3.11b: log Pb vs. log Ni, 5-10 cm, Sudbury Core

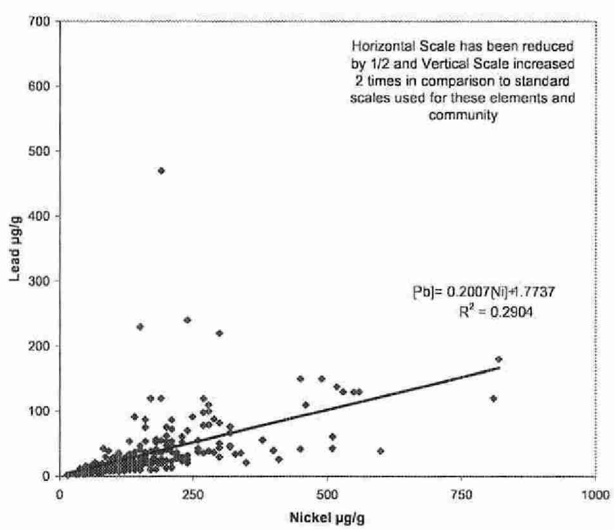


Fig. 10.4.3.12: Pb vs. Ni, 10-20 cm, Sudbury Core

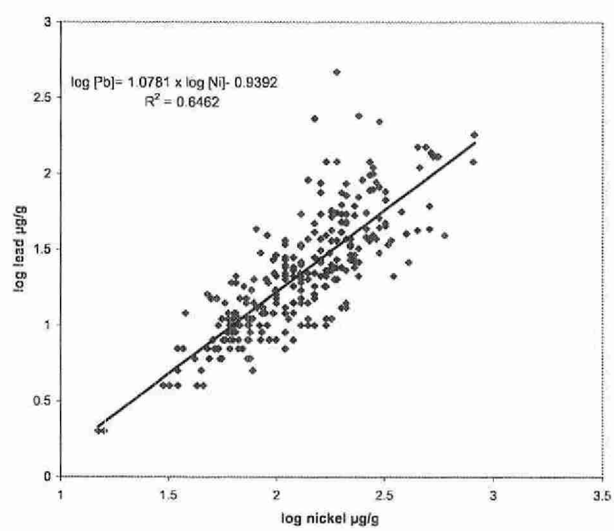


Fig. 10.4.3.12b: log Pb vs. log Ni,10-20 cm, Sudbury Core

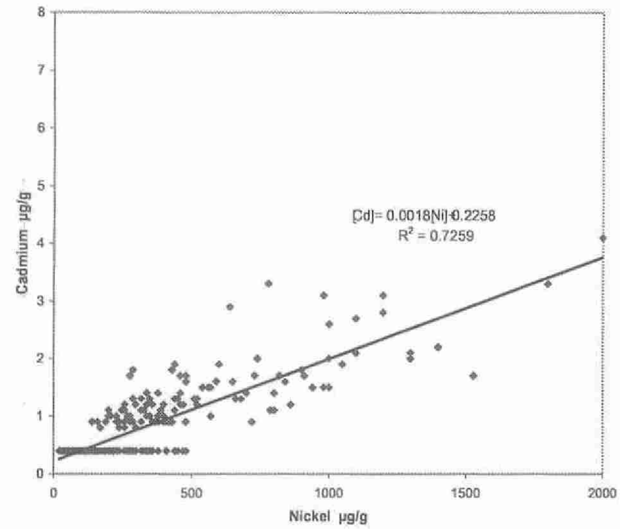


Fig. 10.4.3.13: Cd vs. Ni, 0-5 cm, Sudbury Core

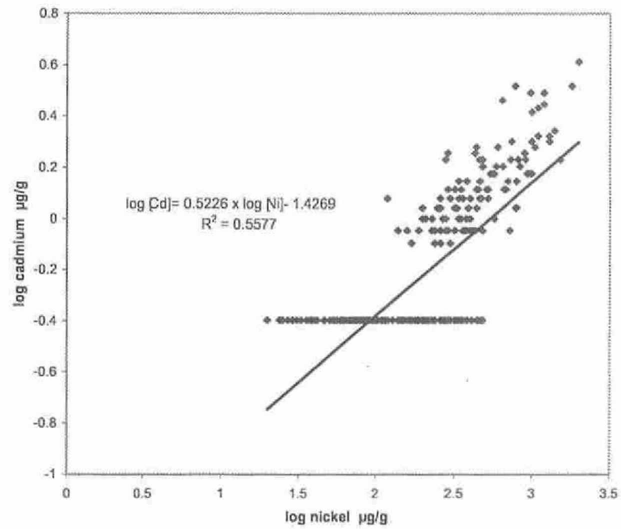


Fig. 10.4.3.13b:log Cd vs. log Ni, 0-5 cm, Sudbury Core

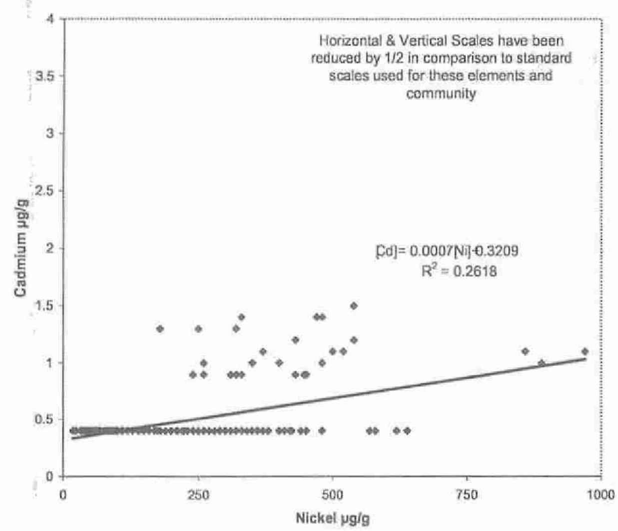


Fig. 10.4.3.14: Cd vs. Ni, 5-10 cm, Sudbury Core

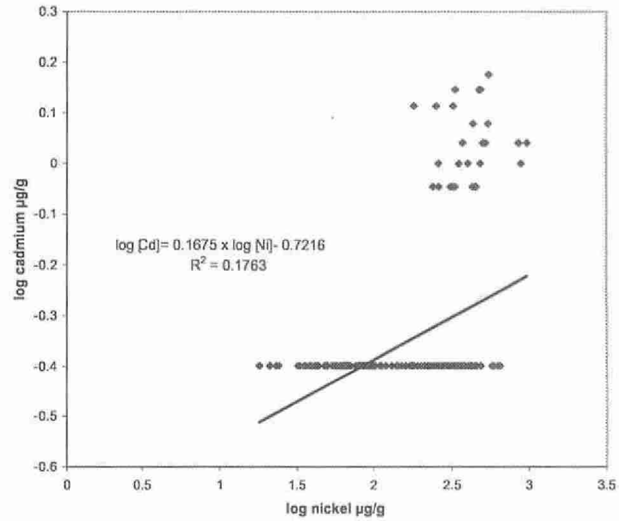


Fig. 10.4.3.14b: log Cd vs. log Ni, 5-10 cm, Sudbury Core

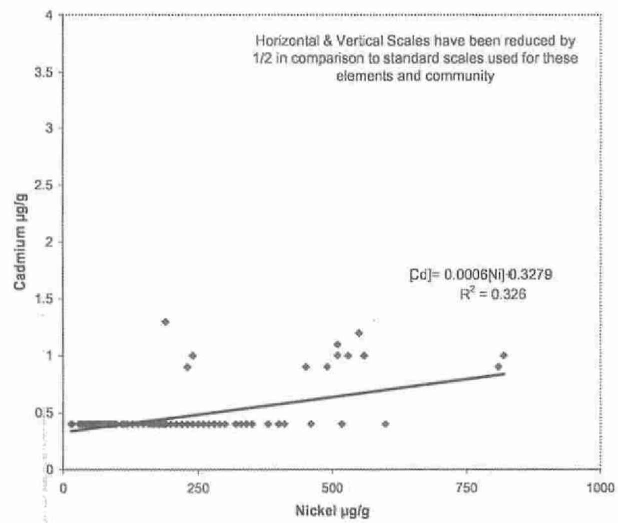


Fig. 10.4.3.15: Cd vs. Ni, 10-20 cm, Sudbury Core

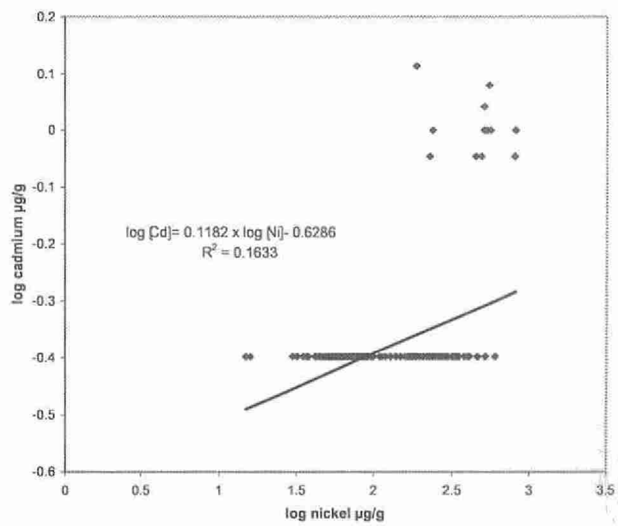


Fig. 10.4.3.15b: log Cd vs log Ni, 10-20 cm, Sudbury Core

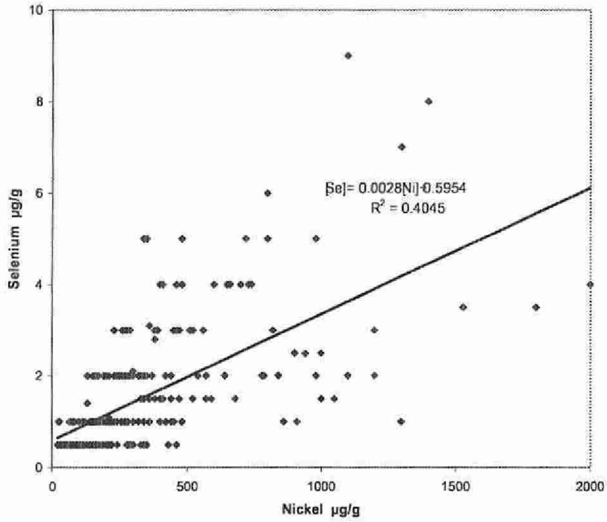


Fig. 10.4.3.16: Se vs. Ni, 0-5 cm, Sudbury Core

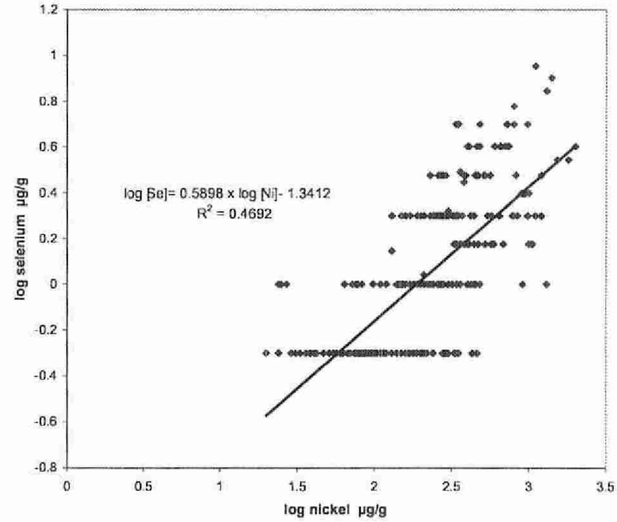


Fig. 10.4.3.16b: log Se vs. log Ni, 0-5 cm, Sudbury Core

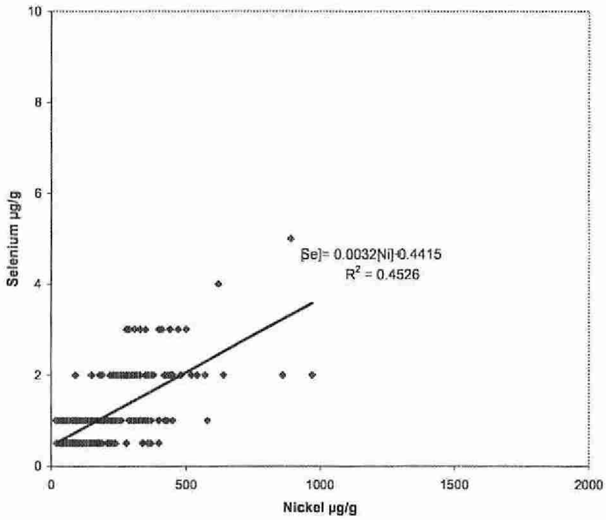


Fig. 10.4.3.17: Se vs. Ni, 5-10 cm, Sudbury Core

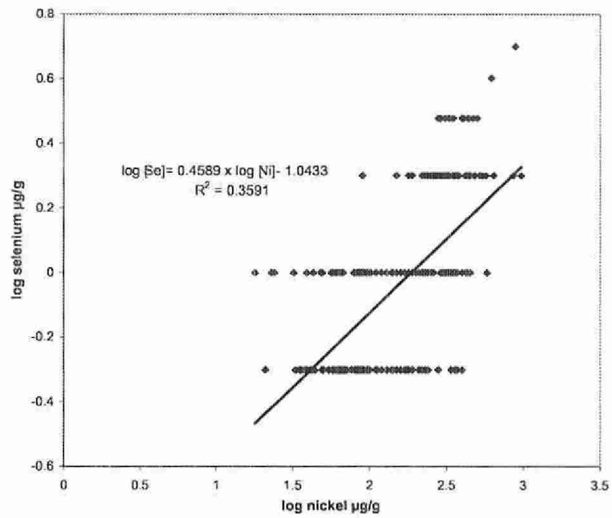


Fig. 10.4.3.17b: log Se vs. log Ni, 5-10 cm, Sudbury Core

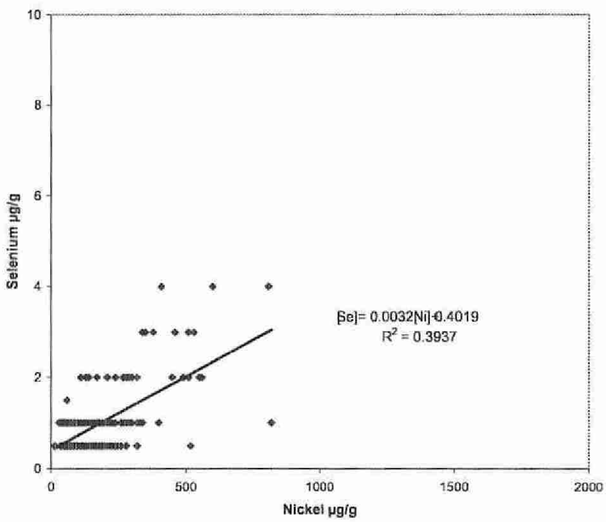


Fig. 10.4.3.18: Se vs. Ni, 10-20 cm, Sudbury Core

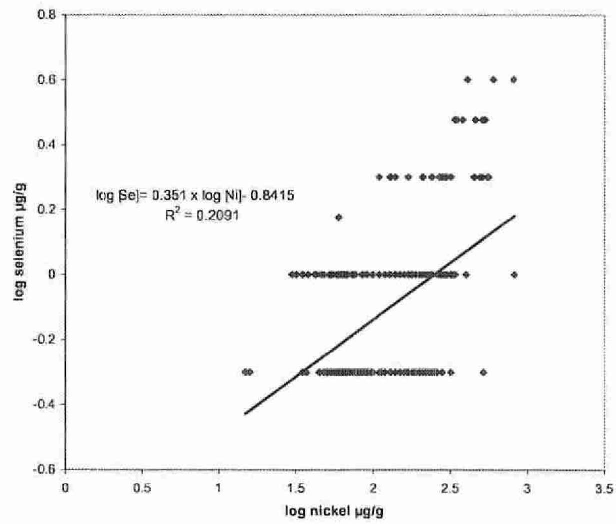


Fig. 10.4.3.18b: log Se vs log Ni, 10-20 cm, Sudbury Core

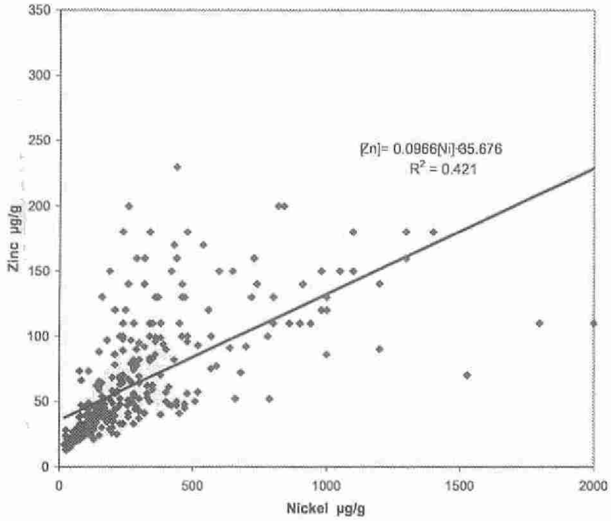


Fig. 10.4.3.19: Zn vs. Ni, 0-5 cm, Sudbury Core

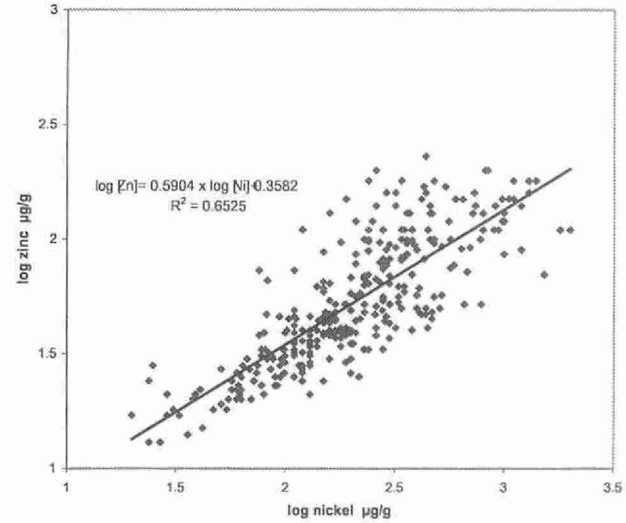


Fig. 10.4.3.19b: log Zn vs. log Ni, 0-5 cm, Sudbury Core

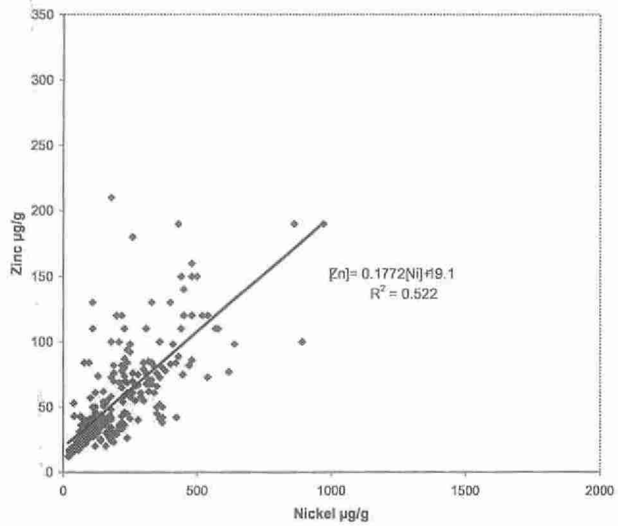


Fig. 10.4.3.20: Zn vs. Ni, 5-10 cm, Sudbury Core

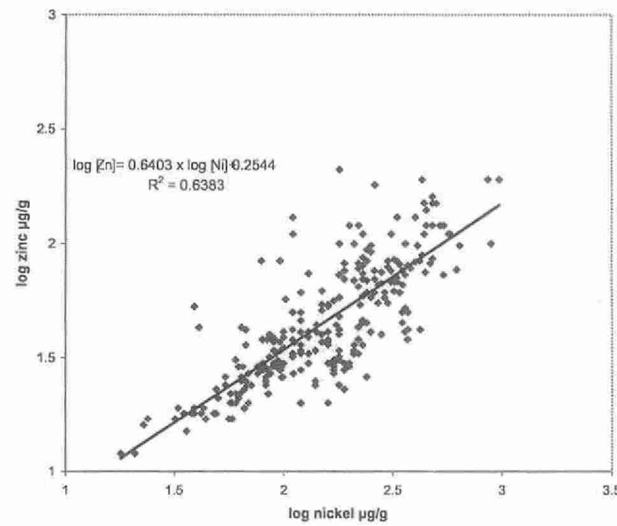


Fig. 10.4.3.20b: log Zn vs. log Ni, 5-10 cm, Sudbury Core

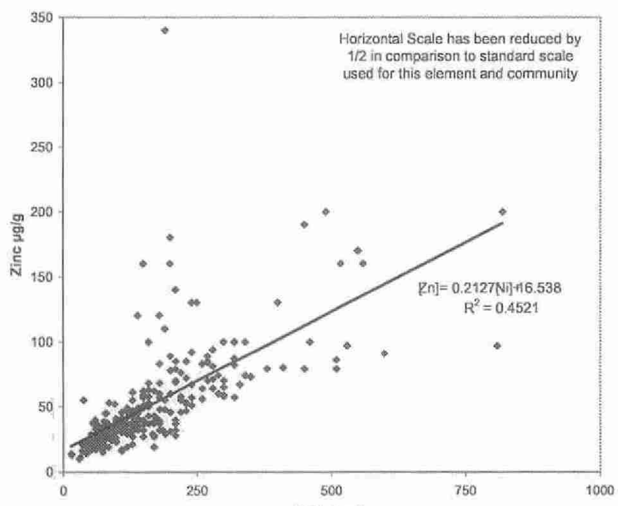


Fig. 10.4.3.21: Zn vs. Ni, 10-20 cm, Sudbury Core

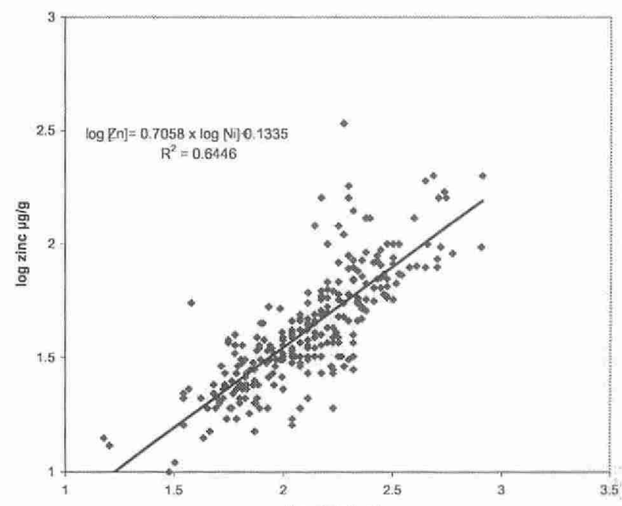


Fig. 10.4.3.21b: log Zn vs log Ni, 10-20 cm, Sudbury Core

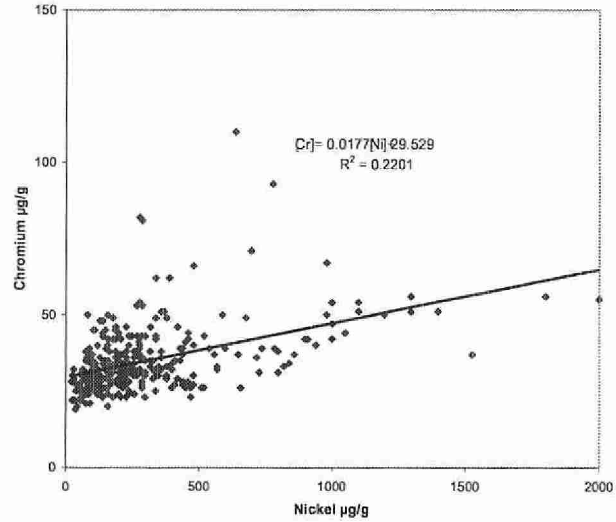


Fig. 10.4.3.22: Cr vs. Ni, 0-5 cm, Sudbury Core

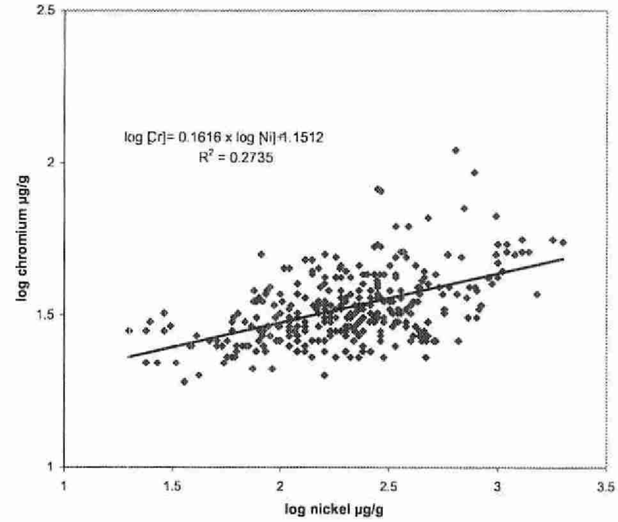


Fig. 10.4.3.22b: log Cr vs.log Ni, 0-5 cm, Sudbury Core

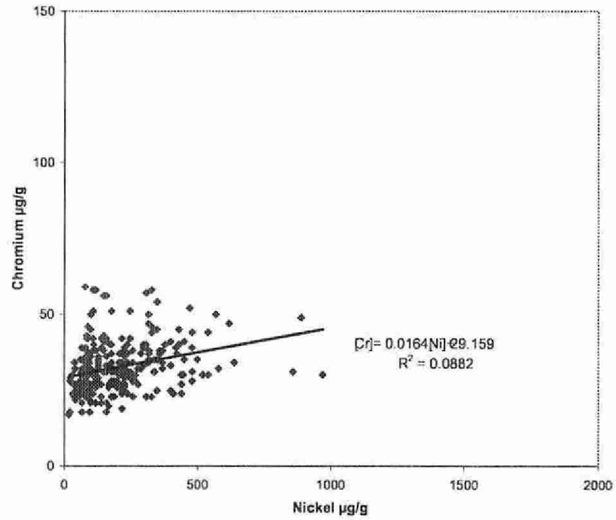


Fig. 10.4.3.23: Cr vs. Ni, 5-10 cm, Sudbury Core

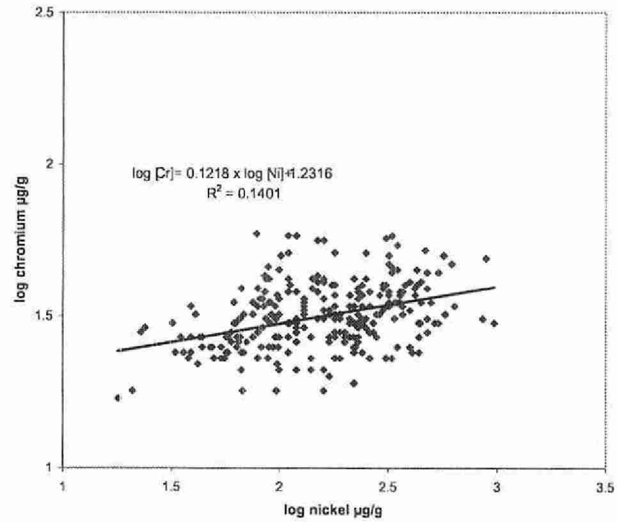


Fig. 10.4.3.23b: log Cr vs. log Ni, 5-10 cm, Sudbury Core

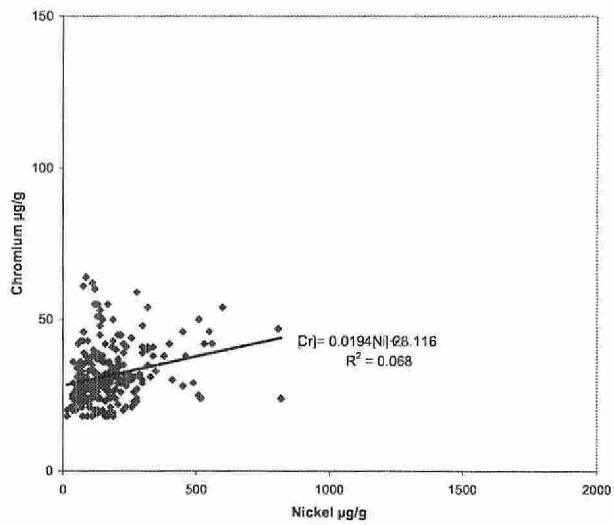


Fig. 10.4.3.24: Cr vs. Ni, 10-20 cm, Sudbury Core

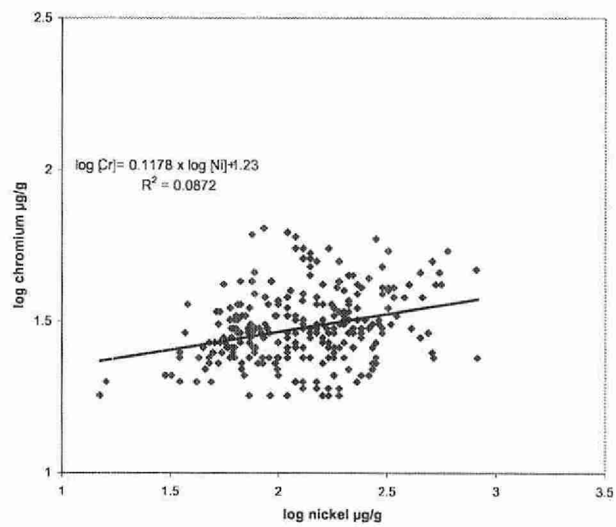


Fig. 10.4.3.24b: log Cr vs. log Ni, 10-20 cm, Sudbury Core

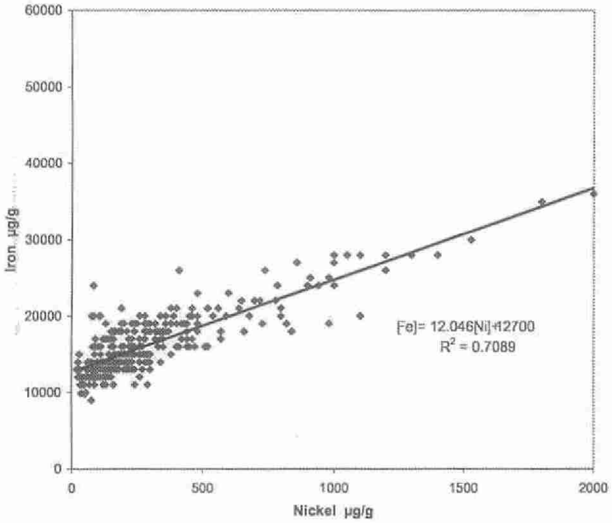


Fig. 10.4.3.25: Fe vs. Ni, 0-5 cm, Sudbury Core

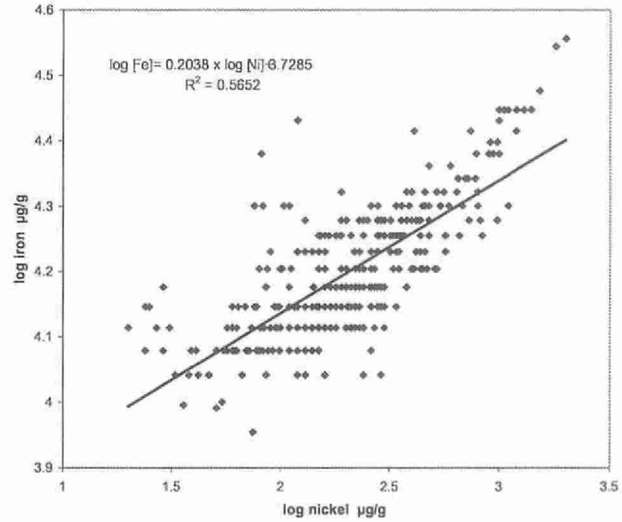


Fig. 10.4.3.25b: log Fe vs log Ni, 0-5 cm, Sudbury Core

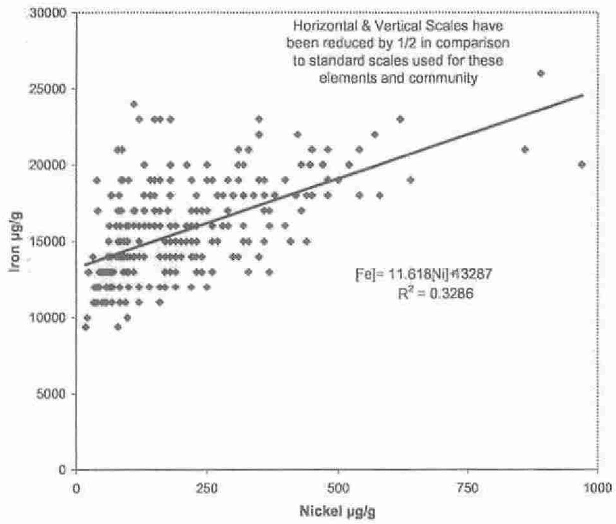


Fig. 10.4.3.26: Fe vs. Ni, 5-10 cm, Sudbury Core

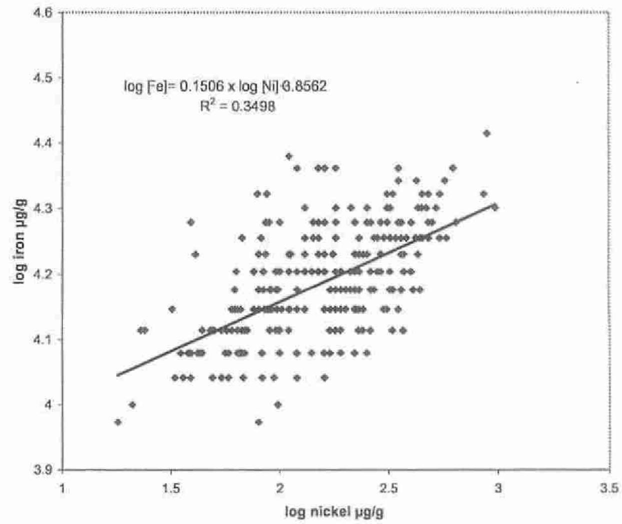


Fig. 10.4.3.26b: log Fe vs. log Ni, 5-10 cm, Sudbury Core

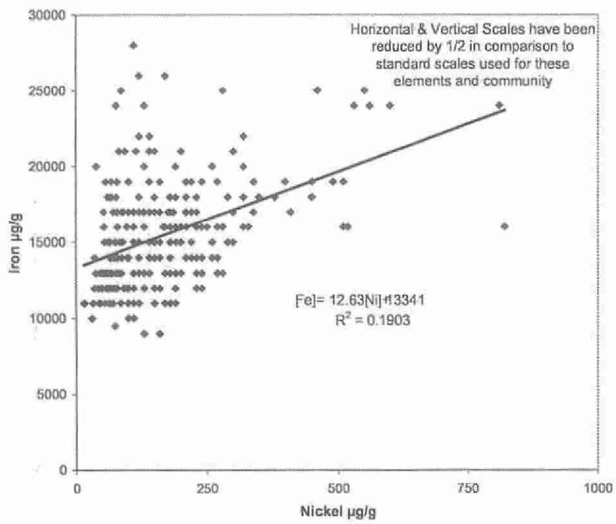


Fig. 10.4.3.27: Fe vs. Ni, 10-20 cm, Sudbury Core

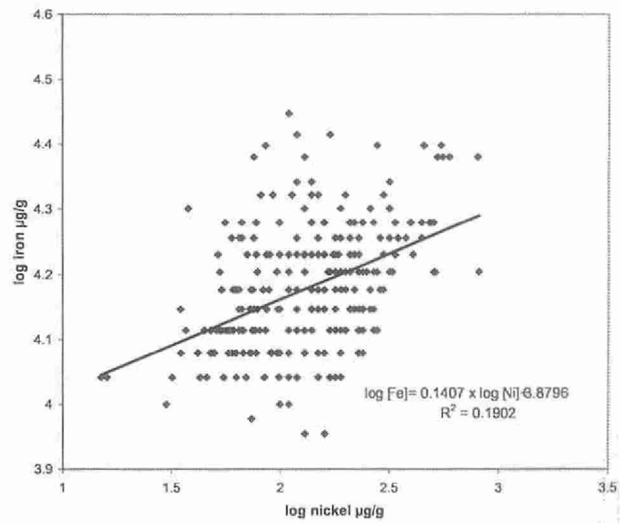


Fig. 10.4.3.27b:log Fe vs log Ni, 10-20 cm, Sudbury Core

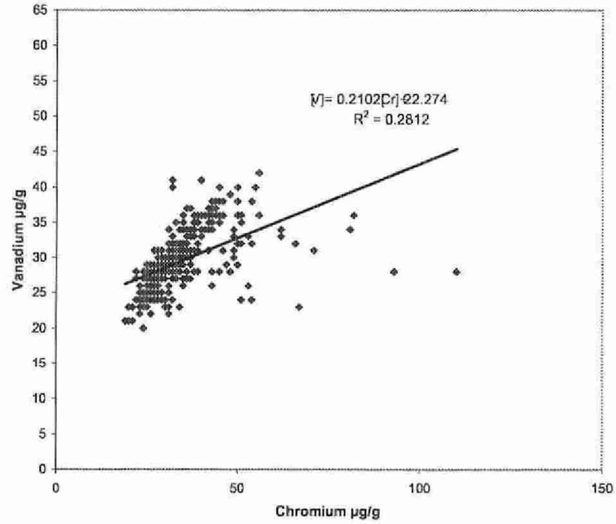


Fig. 10.4.3.28: V vs. Cr, 0-5 cm, Sudbury Core

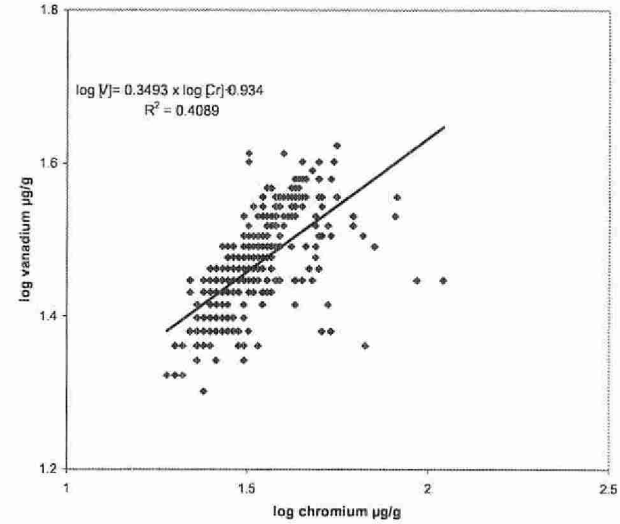


Fig. 10.4.3.28b: logV vs log Cr, 0-5 cm, Sudbury Core

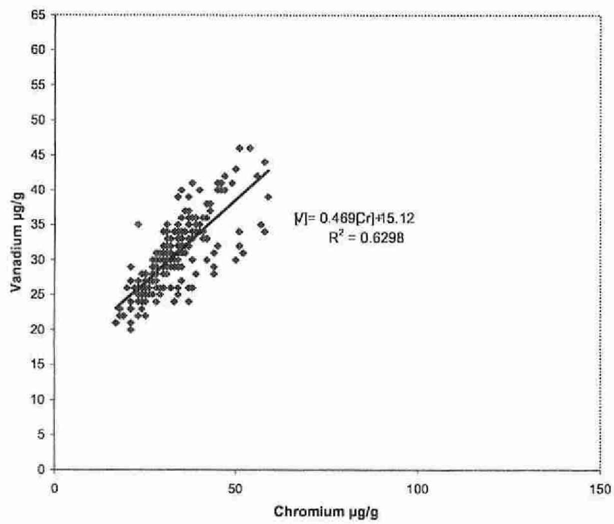


Fig. 10.4.3.29: V vs. Cr, 5-10 cm, Sudbury Core

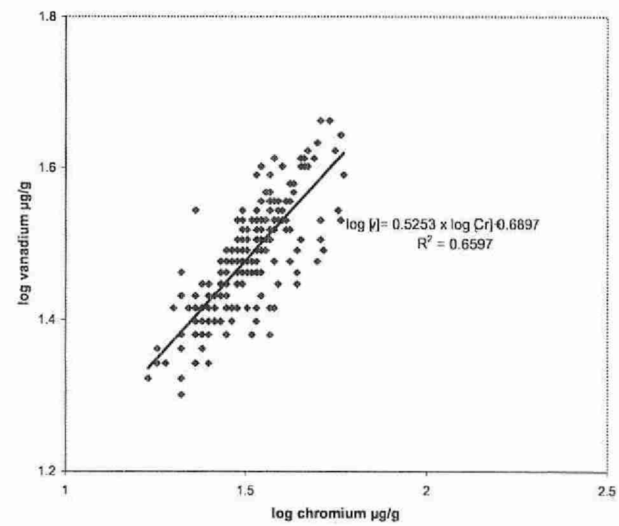


Fig. 10.4.3.29b: log V vs log Cr, 5-10 cm, Sudbury Core

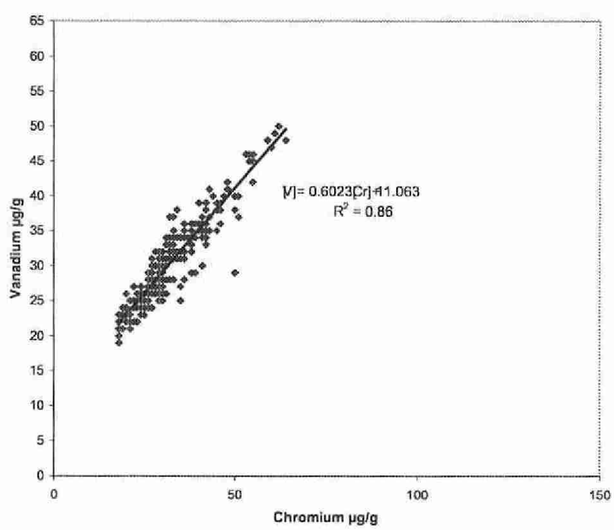


Fig. 10.4.3.30: V vs. Cr, 10-20 cm, Sudbury Core

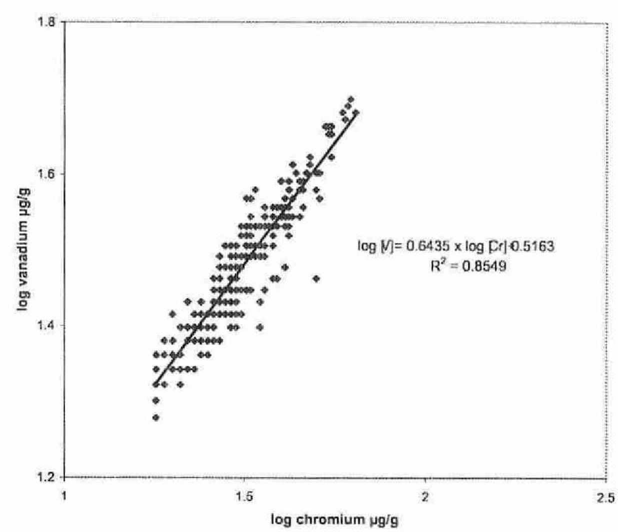


Fig. 10.4.3.30b: log V vs log Cr, 10-20 cm, Sudbury Core

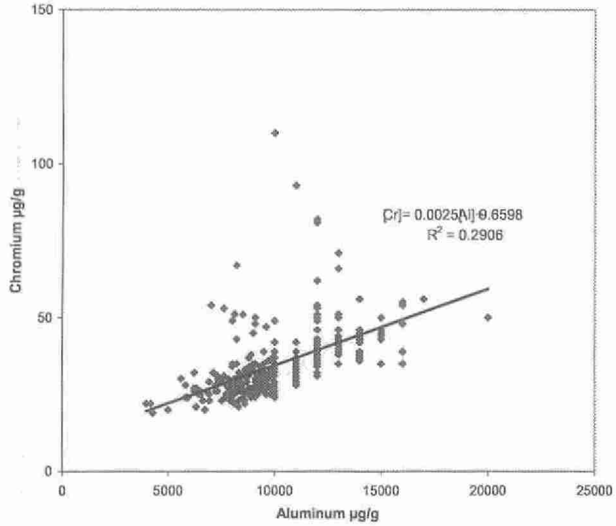


Fig. 10.4.3.31: Cr vs. Al, 0-5 cm, Sudbury Core

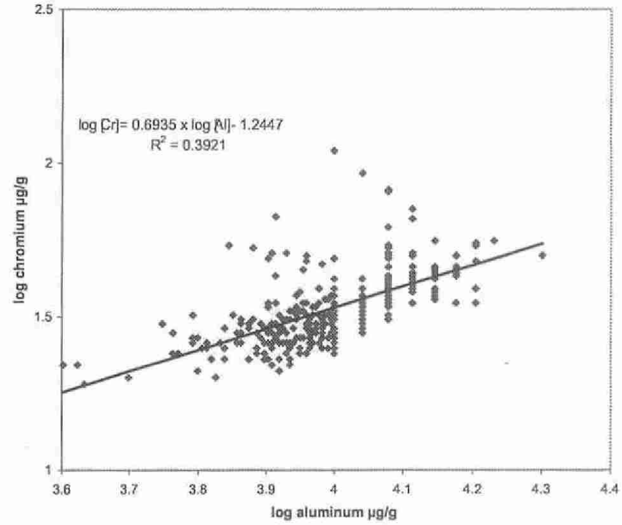


Fig. 10.4.3.31b: log Cr vs log Al, 0-5 cm, Sudbury Core

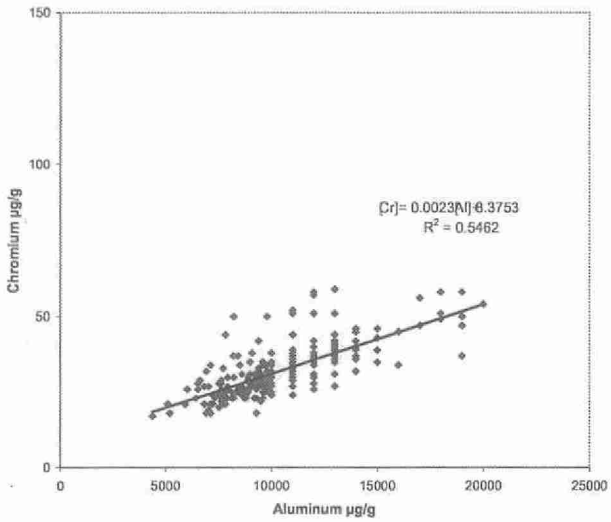


Fig. 10.4.3.32: Cr vs. Al, 5-10 cm, Sudbury Core

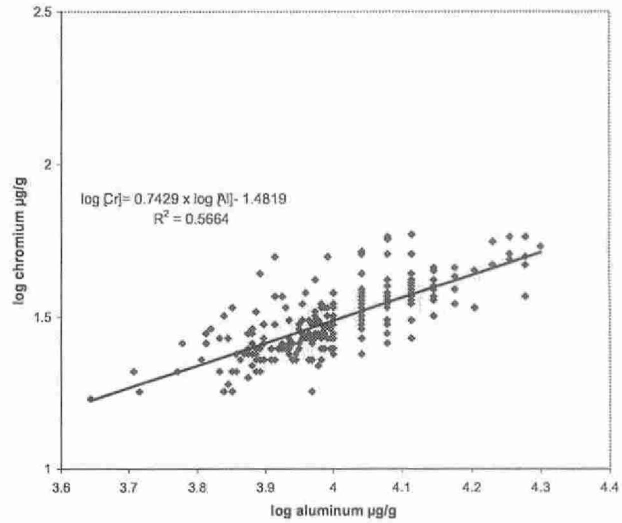


Fig. 10.4.3.32b: log Cr vs. log Al, 5-10 cm, Sudbury Core

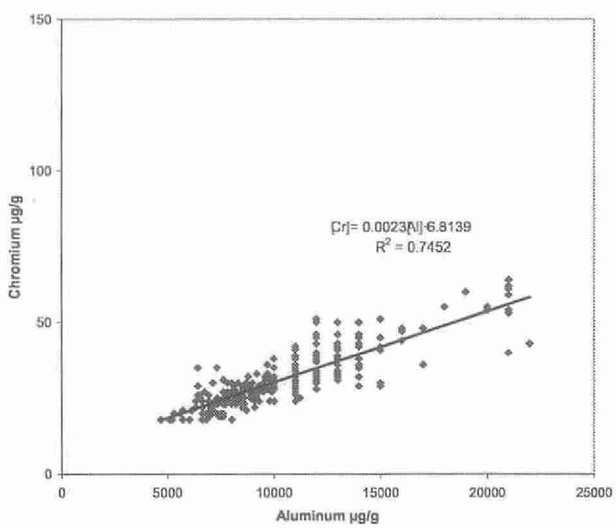


Fig. 10.4.3.33: Cr vs. Al, 10-20 cm, Sudbury Core

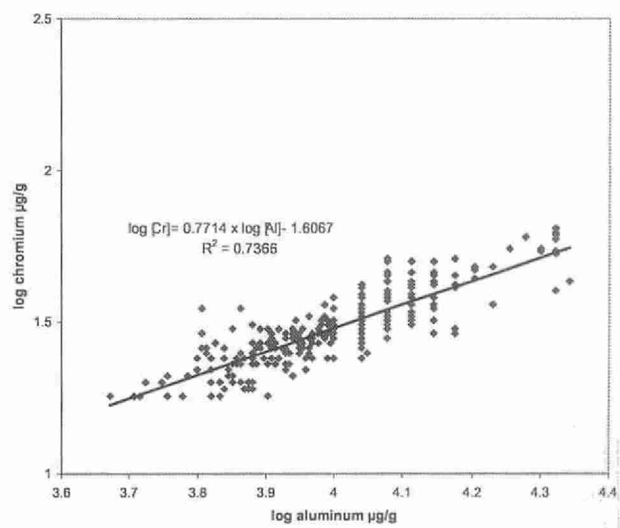


Fig. 10.4.3.33b: log Cr vs.log Al, 10-20 cm, Sudbury Core

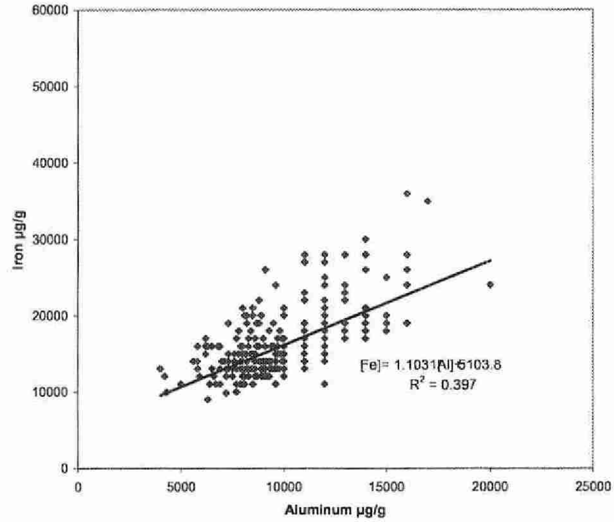


Fig. 10.4.3.34: Fe vs. Al, 0-5 cm, Sudbury Core

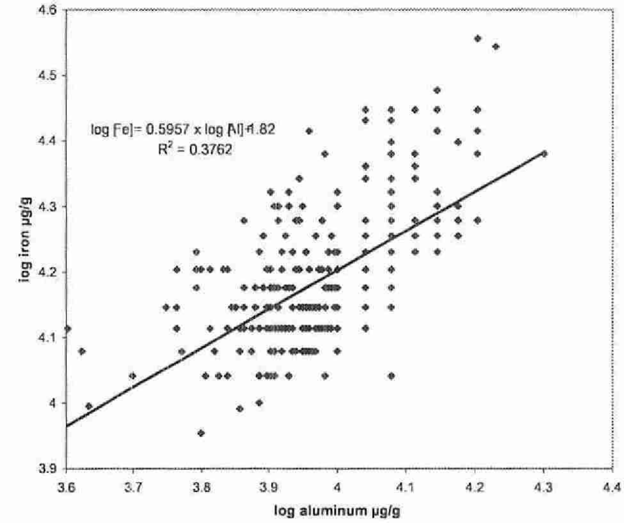


Fig. 10.4.3.34b: log Fe vs. log Al, 0-5 cm, Sudbury Core

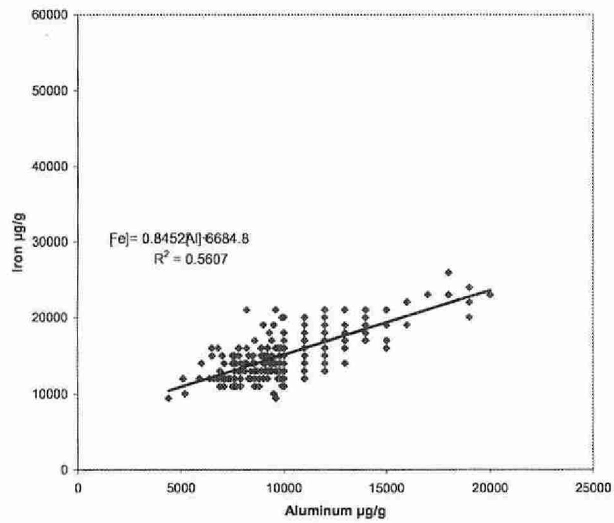


Fig. 10.4.3.35: Fe vs. Al, 5-10 cm, Sudbury Core

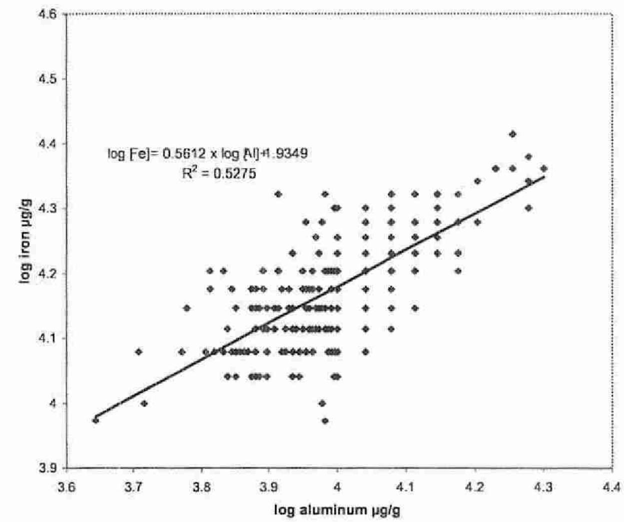


Fig. 10.4.3.35b: log Fe vs. log Al, 5-10 cm, Sudbury Core

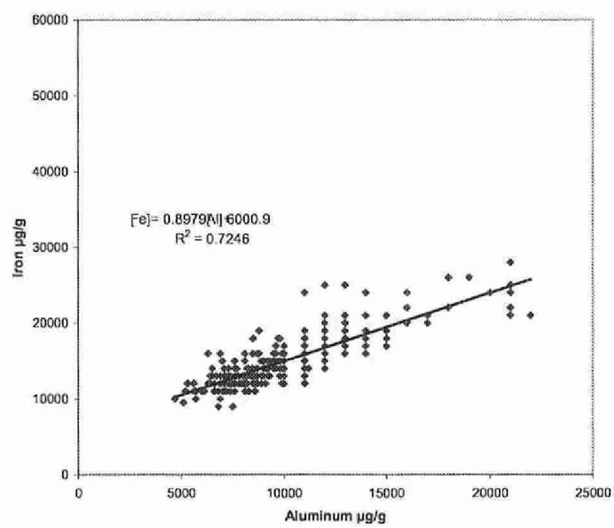


Fig. 10.4.3.36: Fe vs. Al, 10-20 cm, Sudbury Core

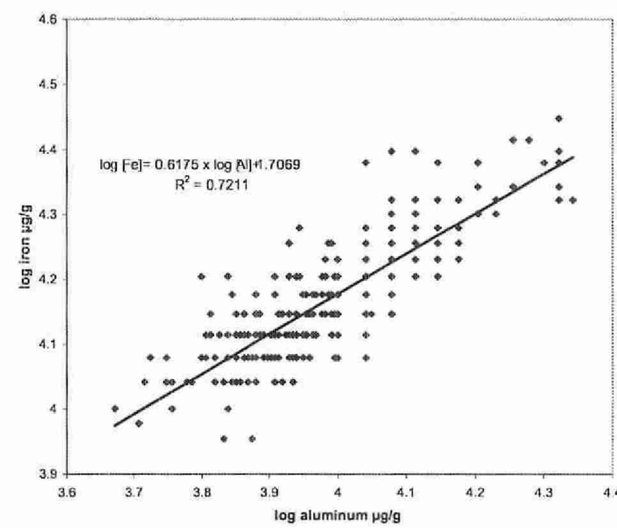


Fig. 10.4.3.36b: log Fe vs log Al, 10-20 cm, Sudbury Core

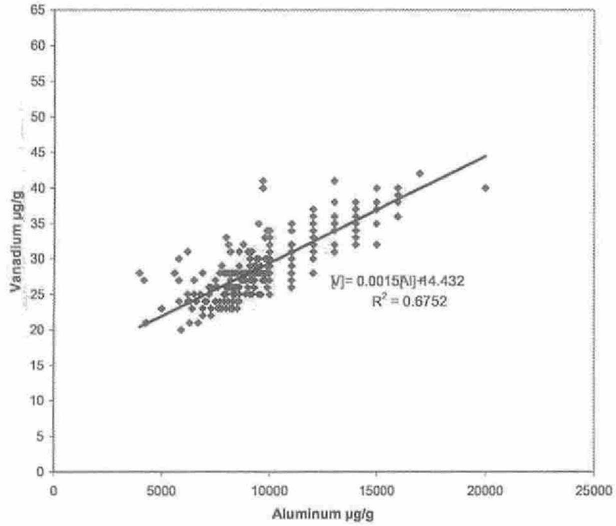


Fig. 10.4.3.37: V vs. Al, 10-20 cm, Sudbury Core

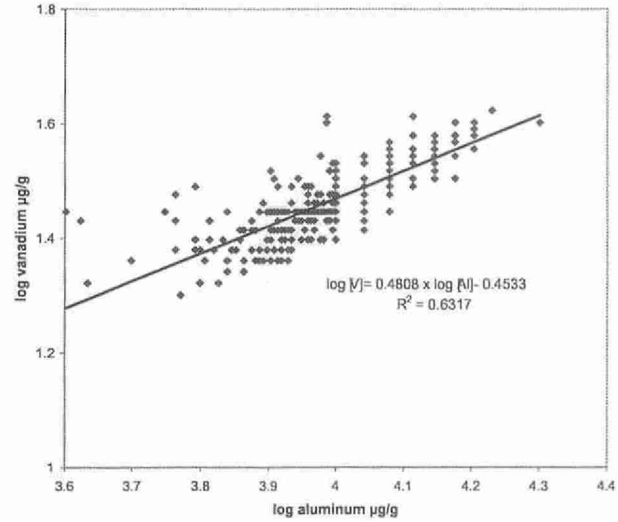


Fig. 10.4.3.37b:log V vs log Al, 10-20 cm, Sudbury Core

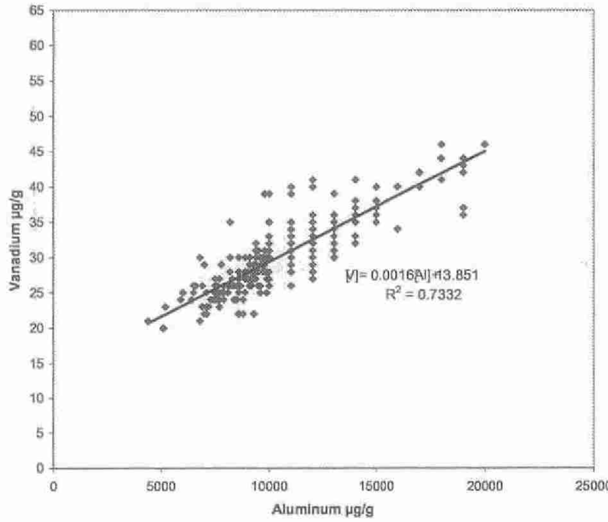


Fig. 10.4.3.38: V vs. Al, 5-10 cm, Sudbury Core

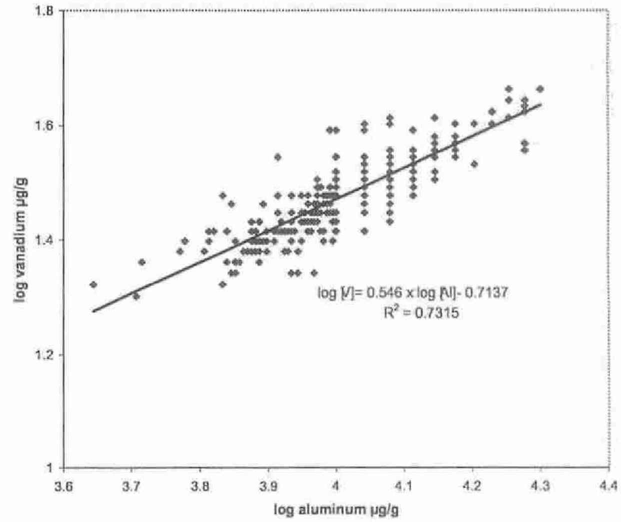


Fig. 10.4.3.38b: log V vs log Al, 5-10 cm, Sudbury Core

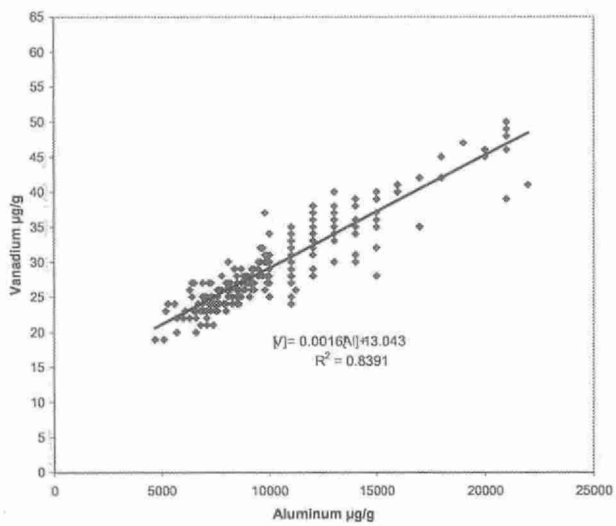


Fig. 10.4.3.39: V vs. Al, 10-20 cm, Sudbury Core

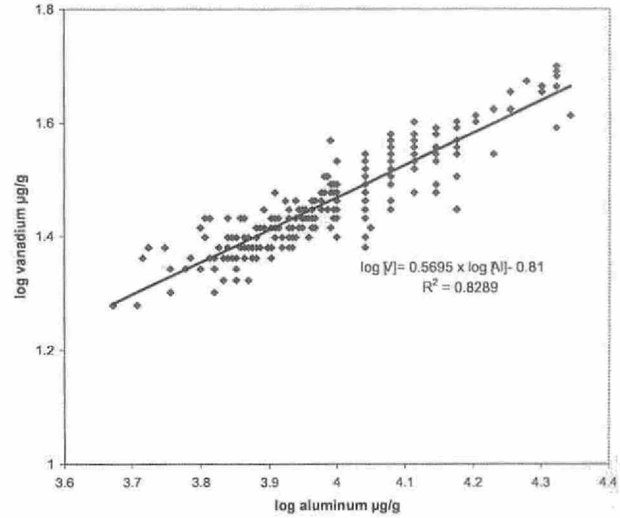


Fig. 10.4.3.39b: log V vs log Al, 10-20 cm, Sudbury Core

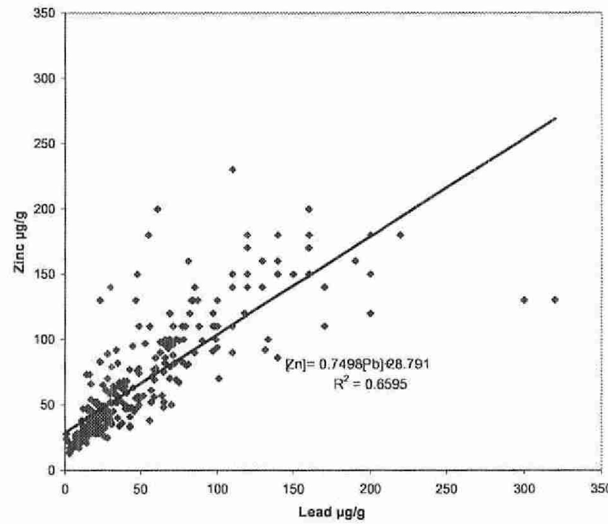


Fig. 10.4.3.40: Zn vs. Pb, 0-5 cm, Sudbury Core

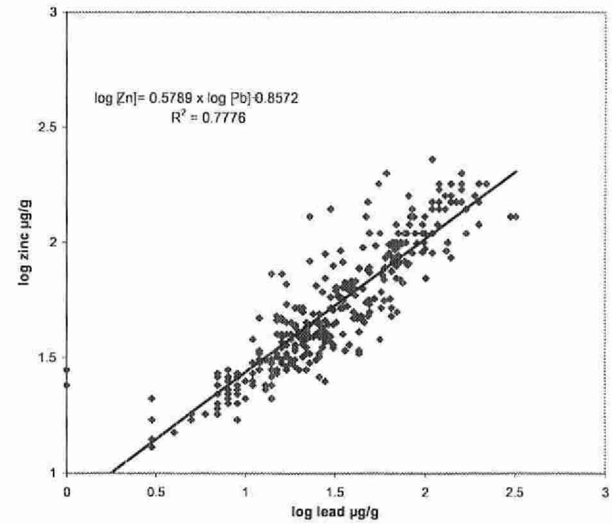


Fig. 10.4.3.40b: log Zn vs log Pb, 0-5 cm, Sudbury Core

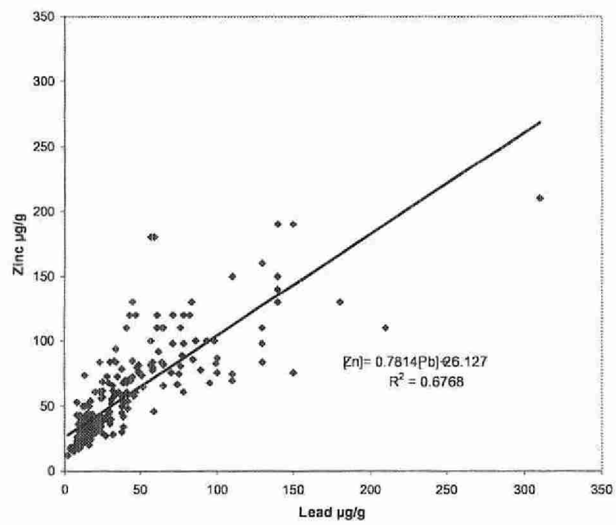


Fig. 10.4.3.41: Zn vs. Pb, 5-10 cm, Sudbury Core

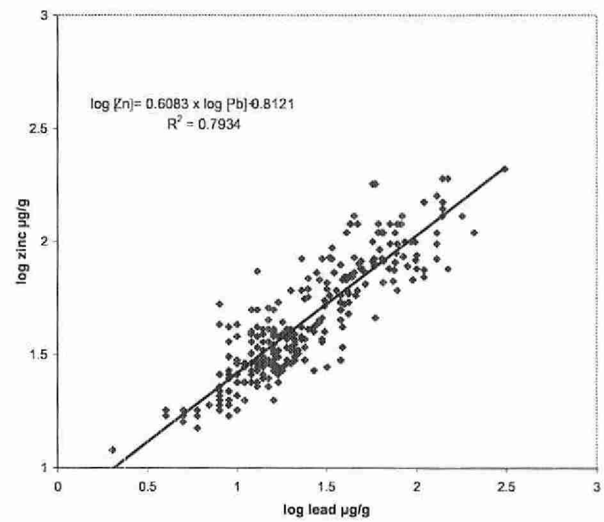


Fig. 10.4.3.41b: log Zn vs. log Pb, 5-10 cm, Sudbury Core

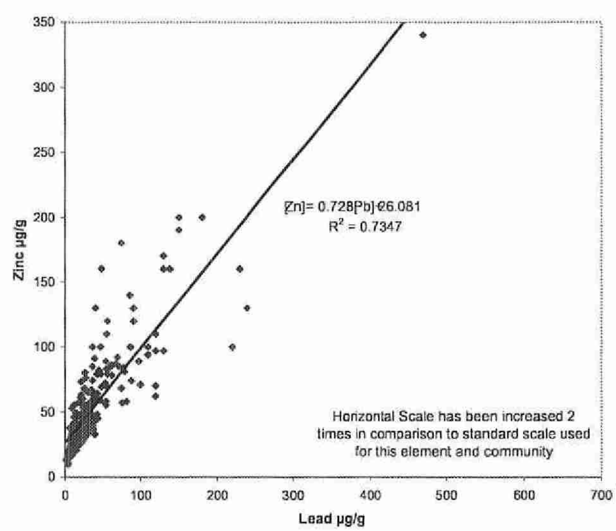


Fig. 10.4.3.42: Zn vs. Pb, 10-20 cm, Sudbury Core

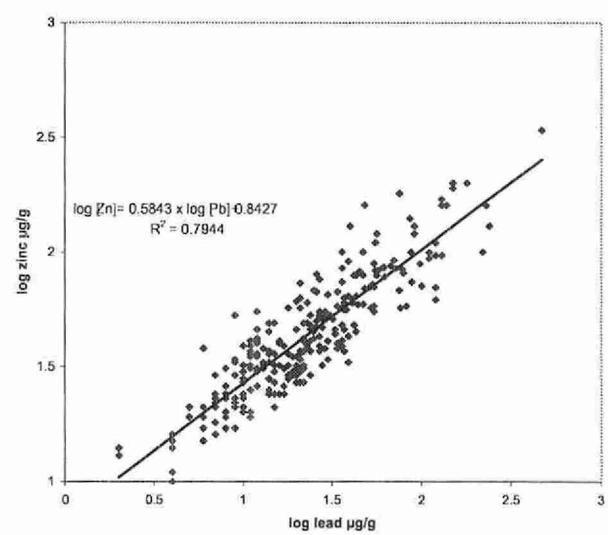


Fig. 10.4.3.42b: log Zn vs log Pb, 10-20cm, Sudbury Core

Table 10.4.3.1: Pearsons and Spearmans Correlations for 0 to 5 cm Urban Soil in the Sudbury Core

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.14*	*0.27*	*0.67*	*0.29*	*0.66*	*0.70*	*0.29*	*0.26*	*0.61*	*0.26*	*0.53*	*0.74*	*-0.06*	*0.27*	*0.16*	***0.86***	***0.83***	*0.38*
Sb	0.08	1	*0.25*	*0.29*	*0.32*	*0.08*	*0.18*	*0.26*	*0.27*	*0.24*	*0.31*	*0.04*	*0.12*	*-0.03*	*0.27*	*0.21*	*0.13*	*0.08*	*0.30*
As	0.29	0.24	1	*0.64*	*0.70*	*0.22*	*0.43*	***0.80***	***0.83***	*0.69*	***0.83***	*0.06*	*0.28*	*0.11*	***0.85***	*0.65*	*0.19*	*0.29*	***0.77***
Ba	0.61	0.26	0.62	1	*0.65*	*0.56*	***0.75***	*0.71*	*0.68*	***0.79***	***0.75***	*0.46*	*0.66*	*0.02*	*0.70*	*0.54*	*0.59*	*0.61*	***0.81***
Cd	0.29	0.23	**0.76**	0.66	1	*0.35*	*0.50*	***0.75***	*0.73*	*0.64*	*0.74*	*0.17*	*0.35*	*0.12*	***0.75***	*0.63*	*0.26*	*0.29*	*0.70*
Ca	0.58	0.07	0.17	0.49	0.34	1	*0.63*	*0.28*	*0.23*	*0.47*	*0.27*	*0.71*	*0.66*	*0.05*	*0.27*	*0.12*	***0.77***	*0.60*	*0.37*
Cr	0.54	0.11	0.45	0.56	0.61	0.44	1	*0.56*	*0.49*	***0.77***	*0.49*	*0.63*	*0.69*	*0.06*	*0.49*	*0.35*	*0.64*	*0.74*	*0.59*
Co	0.34	0.26	**0.86**	0.69	**0.85**	0.24	0.49	1	***0.91***	***0.81***	***0.87***	*0.25*	*0.36*	*0.09*	***0.96***	*0.65*	*0.19*	*0.32*	***0.81***
Cu	0.31	0.27	**0.82**	0.68	**0.82**	0.23	0.46	**0.93**	1	*0.73*	***0.88***	*0.13*	*0.27*	*0.10*	***0.96***	*0.74*	*0.14*	*0.22*	***0.83***
Fe	0.63	0.19	**0.78**	**0.75**	0.73	0.39	0.63	**0.88**	**0.82**	1	*0.69*	*0.51*	*0.61*	*0.07*	*0.74*	*0.51*	*0.49*	*0.66*	*0.72*
Pb	0.22	0.32	0.72	0.70	0.66	0.21	0.40	0.72	0.75	0.64	1	*0.14*	*0.31*	*0.07*	***0.90***	*0.70*	*0.20*	*0.24*	***0.89***
Mg	0.53	-0.03	-0.03	0.27	0.05	**0.75**	0.33	0.09	0.06	0.34	0.00	1	*0.62*	*-0.09*	*0.15*	*0.00*	*0.56*	*0.60*	*0.26*
Mn	0.44	0.04	0.18	0.62	0.26	0.49	0.26	0.21	0.19	0.36	0.22	0.28	1	*-0.03*	*0.28*	*0.17*	*0.73*	***0.79***	*0.44*
Mo	-0.04	-0.03	0.10	-0.02	0.12	0.03	0.05	0.07	0.06	0.03	0.01	-0.07	0.00	1	*0.11*	*0.03*	*-0.03*	*-0.04*	*0.06*
Ni	0.32	0.27	**0.87**	0.67	**0.85**	0.25	0.47	**0.98**	**0.95**	**0.84**	0.71	0.06	0.18	0.09	1	*0.70*	*0.17*	*0.24*	*0.83*
Se	0.20	0.16	0.55	0.52	0.59	0.11	0.35	0.61	0.74	0.55	0.63	-0.04	0.13	-0.02	0.64	1	*0.07*	*0.15*	*0.66*
Sr	**0.77**	0.07	0.16	0.59	0.24	0.74	0.43	0.21	0.14	0.43	0.21	0.51	0.61	-0.01	0.19	0.06	1	***0.80***	*0.30*
V	**0.82**	0.01	0.26	0.55	0.26	0.49	0.53	0.31	0.25	0.62	0.17	0.49	0.46	-0.04	0.27	0.19	0.72	1	*0.37*
Zn	0.31	0.32	0.64	**0.82**	0.68	0.37	0.45	0.65	0.70	0.62	**0.81**	0.10	0.41	0.01	0.65	0.60	0.34	0.29	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.3.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in the Sudbury Core

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	0.07	0.15	0.58	0.11	0.66	**0.76**	0.26	0.13	0.71	0.10	0.62	0.70	-0.03	0.15	0.04	**0.84**	**0.86**	0.29
Sb	0.03	1	0.27	0.30	0.30	0.03	0.07	0.26	0.26	0.22	0.35	0.01	0.10	0.06	0.26	0.23	0.14	0.05	0.31
As	0.18	0.24	1	0.64	0.41	0.16	0.33	**0.76**	**0.85**	0.52	**0.76**	0.11	0.27	0.08	**0.87**	0.64	0.12	0.19	**0.72**
Ba	0.60	0.38	0.63	1	0.35	0.50	0.66	**0.75**	0.72	**0.78**	0.71	0.53	0.67	0.04	0.72	0.47	0.54	0.58	**0.83**
Cd	0.07	0.25	0.45	0.38	1	0.23	0.27	0.43	0.41	0.34	0.41	0.08	0.21	0.03	0.43	0.43	0.17	0.11	0.41
Ca	0.53	0.02	0.15	0.42	0.28	1	**0.75**	0.33	0.16	0.61	0.21	0.72	**0.75**	0.02	0.21	0.17	**0.82**	0.74	0.37
Cr	0.74	0.10	0.29	0.59	0.30	0.61	1	0.52	0.35	**0.80**	0.30	**0.76**	**0.76**	0.05	0.38	0.23	0.74	**0.82**	0.45
Co	0.26	0.30	**0.75**	0.72	0.52	0.29	0.40	1	**0.88**	0.74	**0.78**	0.46	0.47	0.07	**0.92**	0.54	0.21	0.35	**0.78**
Cu	0.16	0.26	**0.81**	0.67	0.48	0.16	0.27	**0.90**	1	0.57	**0.84**	0.21	0.32	0.03	**0.96**	0.62	0.06	0.16	0.82
Fe	**0.75**	0.19	0.53	0.74	0.32	0.53	0.78	0.70	0.55	1	0.49	0.73	0.73	0.04	0.58	0.35	0.60	**0.78**	0.63
Pb	0.05	0.46	0.62	0.66	0.47	0.17	0.21	0.63	0.66	0.37	1	0.15	0.32	0.09	**0.84**	0.60	0.12	0.14	**0.88**
Mg	0.66	-0.03	0.02	0.41	0.00	0.64	0.71	0.29	0.09	0.70	-0.01	1	**0.75**	-0.01	0.24	0.03	0.58	0.73	0.32
Mn	0.67	0.07	0.22	0.61	0.16	0.65	0.68	0.35	0.22	0.67	0.22	0.67	1	-0.01	0.33	0.21	0.72	**0.76**	0.51
Mo	-0.03	-0.02	0.04	0.02	0.00	0.00	0.09	0.00	-0.03	0.01	0.05	-0.02	0.01	1	0.06	0.12	0.02	0.04	0.10
Ni	0.20	0.27	**0.82**	0.69	0.51	0.21	0.30	**0.93**	**0.95**	0.57	0.63	0.12	0.23	-0.01	1	0.61	0.10	0.19	**0.80**
Se	0.10	0.19	0.66	0.48	0.46	0.17	0.25	0.61	0.72	0.41	0.57	0.02	0.17	0.04	0.67	1	0.10	0.09	0.54
Sr	**0.79**	0.18	0.13	0.59	0.18	0.73	0.69	0.23	0.09	0.61	0.16	0.56	0.68	0.04	0.15	0.07	1	**0.82**	0.28
V	**0.86**	0.02	0.16	0.54	0.07	0.61	**0.79**	0.28	0.12	**0.79**	0.04	0.73	0.73	0.03	0.16	0.12	**0.78**	1	0.32
Zn	0.18	0.42	0.66	**0.76**	0.51	0.36	0.30	0.71	0.72	0.48	**0.82**	0.12	0.39	0.03	0.72	0.51	0.31	0.18	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.3.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Sudbury Core

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.07*	*0.26*	*0.67*	*0.08*	*0.63*	*0.85*	*0.40*	*0.23*	*0.85*	*0.15*	*0.60*	*0.76*	*0.00*	*0.23*	*0.19*	*0.82*	*0.90*	*0.34*
Sb	0.02	1	*0.22*	*0.27*	*0.38*	*0.13*	*0.09*	*0.20*	*0.23*	*0.11*	*0.31*	*-0.05*	*0.15*	*-0.04*	*0.21*	*0.12*	*0.21*	*0.05*	*0.32*
As	0.24	0.16	1	*0.58*	*0.32*	*0.10*	*0.25*	*0.62*	*0.85*	*0.42*	*0.70*	*0.03*	*0.30*	*0.00*	*0.83*	*0.48*	*0.19*	*0.23*	*0.75*
Ba	0.63	0.33	0.55	1	*0.25*	*0.50*	*0.68*	*0.67*	*0.63*	*0.76*	*0.59*	*0.49*	*0.69*	*-0.04*	*0.63*	*0.33*	*0.66*	*0.66*	*0.74*
Cd	0.05	0.34	0.41	0.40	1	*0.17*	*0.17*	*0.34*	*0.34*	*0.23*	*0.32*	*0.04*	*0.23*	*-0.03*	*0.34*	*0.32*	*0.18*	*0.08*	*0.32*
Ca	0.50	0.19	0.11	0.41	0.20	1	*0.74*	*0.38*	*0.15*	*0.64*	*0.10*	*0.73*	*0.73*	*-0.05*	*0.15*	*0.13*	*0.81*	*0.69*	*0.26*
Cr	0.86	0.07	0.26	0.62	0.20	0.62	1	*0.54*	*0.28*	*0.88*	*0.19*	*0.81*	*0.82*	*-0.02*	*0.28*	*0.24*	*0.80*	*0.92*	*0.36*
Co	0.32	0.18	0.68	0.66	0.57	0.31	0.45	1	*0.75*	*0.67*	*0.67*	*0.46*	*0.58*	*0.01*	*0.8*	*0.34*	*0.36*	*0.45*	*0.71*
Cu	0.20	0.15	0.77	0.58	0.53	0.14	0.25	0.83	1	*0.45*	*0.84*	*0.12*	*0.37*	*-0.01*	*0.96*	*0.42*	*0.17*	*0.21*	*0.86*
Fe	0.85	0.05	0.45	0.66	0.25	0.52	0.89	0.61	0.43	1	*0.34*	*0.72*	*0.81*	*0.00*	*0.43*	*0.30*	*0.72*	*0.87*	*0.51*
Pb	0.09	0.45	0.55	0.66	0.54	0.20	0.18	0.53	0.54	0.24	1	*0.02*	*0.31*	*-0.02*	*0.82*	*0.33*	*0.15*	*0.14*	*0.88*
Mg	0.67	-0.02	0.01	0.43	0.02	0.68	0.81	0.29	0.03	0.73	-0.03	1	*0.71*	*0.01*	*0.11*	*0.10*	*0.59*	*0.73*	*0.17*
Mn	0.75	0.13	0.31	0.69	0.25	0.63	0.85	0.52	0.33	0.81	0.33	0.73	1	*-0.03*	*0.35*	*0.23*	*0.76*	*0.79*	*0.47*
Mo	0.00	-0.03	0.00	-0.05	-0.02	-0.06	-0.03	0.01	-0.03	0.00	-0.04	-0.03	-0.04	1	*0.02*	*0.01*	*-0.05*	*0.00*	*-0.06*
Ni	0.22	0.17	0.79	0.62	0.57	0.17	0.26	0.88	0.95	0.44	0.54	0.04	0.34	-0.01	1	*0.37*	*0.18*	*0.21*	*0.82*
Se	0.18	0.09	0.60	0.32	0.39	0.11	0.24	0.54	0.65	0.37	0.37	0.08	0.22	0.06	0.63	1	*0.14*	*0.20*	*0.37*
Sr	0.78	0.21	0.23	0.69	0.23	0.71	0.75	0.38	0.23	0.70	0.28	0.55	0.74	-0.04	0.27	0.12	1	*0.82*	*0.32*
V	0.92	0.00	0.24	0.57	0.08	0.56	0.93	0.37	0.19	0.89	0.07	0.75	0.81	0	0.21	0.21	0.78	1	*0.31*
Zn	0.19	0.45	0.65	0.75	0.57	0.28	0.26	0.63	0.67	0.34	0.86	0.02	0.43	-0.1	0.67	0.36	0.40	0.16	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.4 Coniston

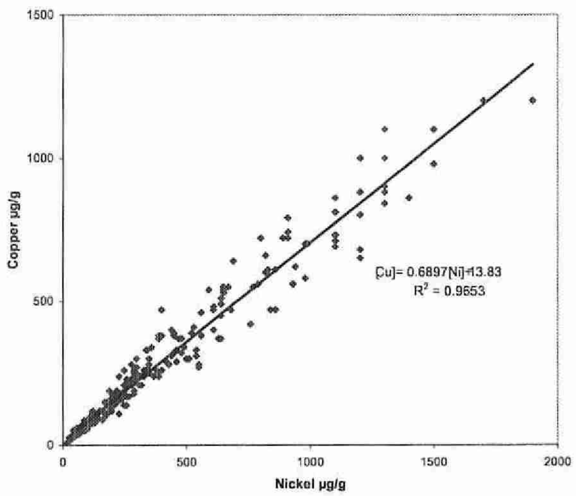


Fig. 10.4.4.1: Cu vs. Ni, 0-5 cm, Coniston

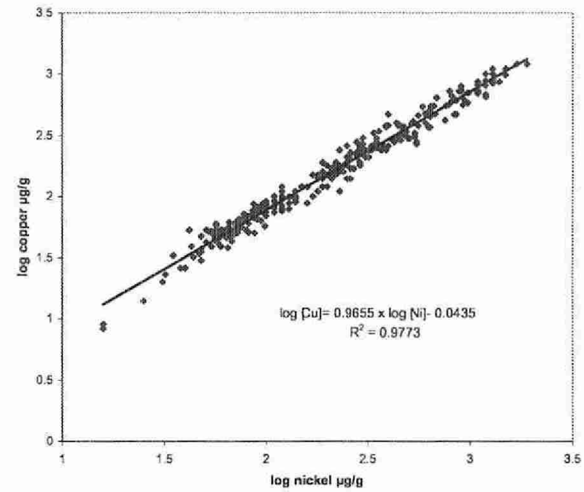


Fig. 10.4.4.1b: log Cu vs. log Ni, 0-5 cm, Coniston

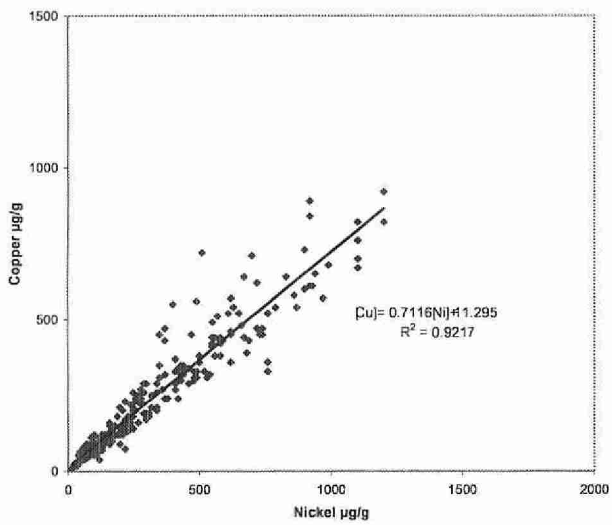


Fig. 10.4.4.2: Cu vs. Ni, 5-10 cm, Coniston

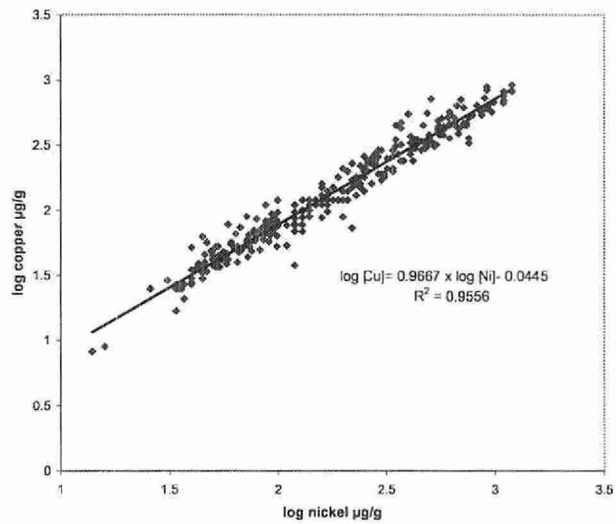


Fig. 10.4.4.2b: log Cu vs. log Ni, 5-10 cm, Coniston

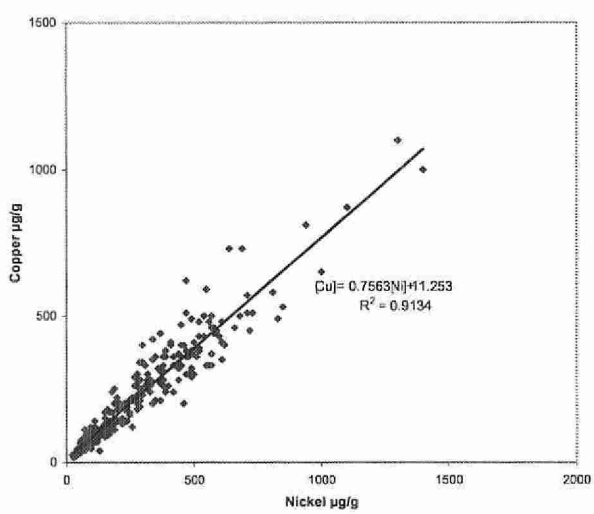


Fig. 10.4.4.3: Cu vs. Ni, 10-20 cm, Coniston

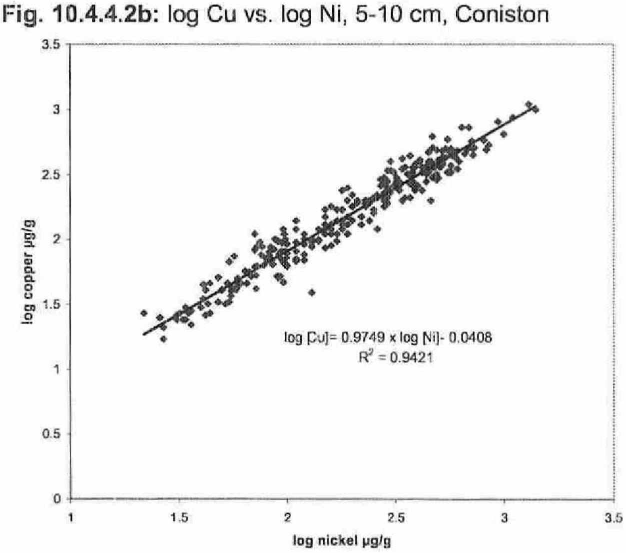


Fig. 10.4.4.3b: log Cu vs. log Ni, 10-20 cm, Coniston

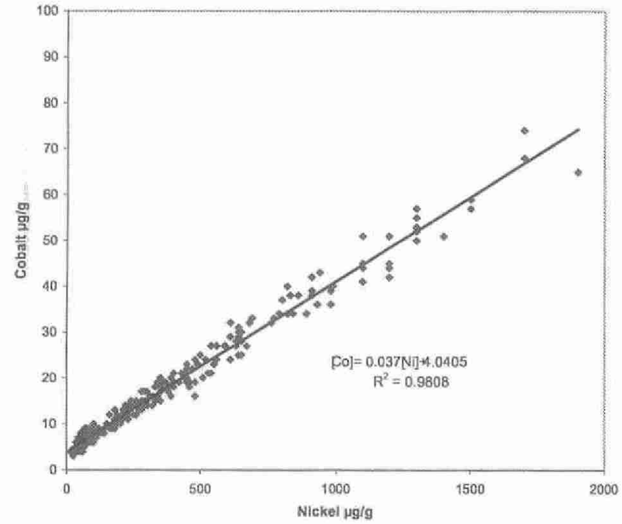


Fig. 10.4.4.4: Co vs. Ni, 0-5 cm, Coniston

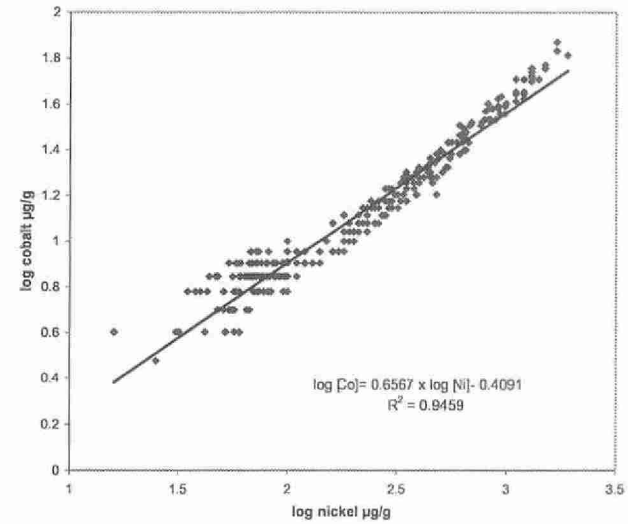


Fig. 10.4.4.4b: log Co vs. log Ni, 0-5 cm, Coniston

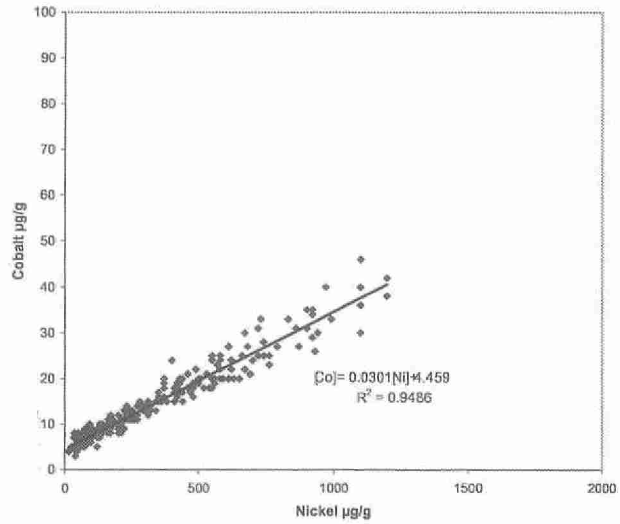


Fig. 10.4.4.5: Co vs. Ni, 5-10 cm, Coniston

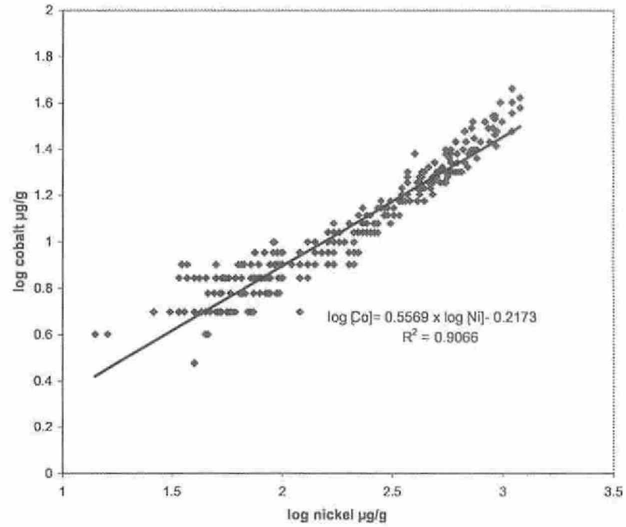


Fig. 10.4.4.5b: log Co vs. log Ni, 5-10 cm, Coniston

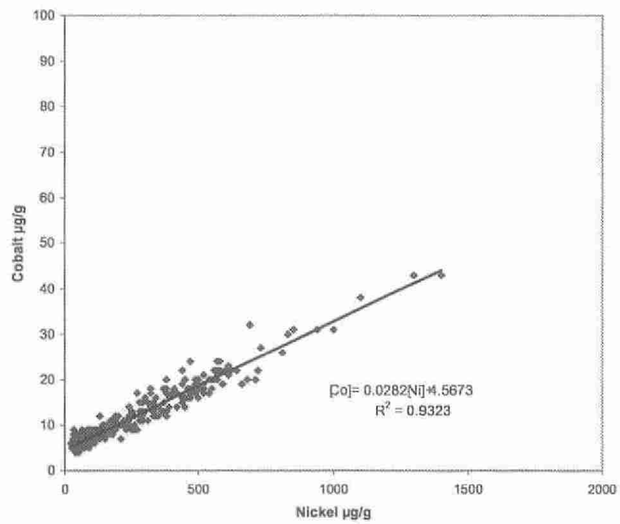


Fig. 10.4.4.6: Co vs. Ni, 10-20 cm, Coniston

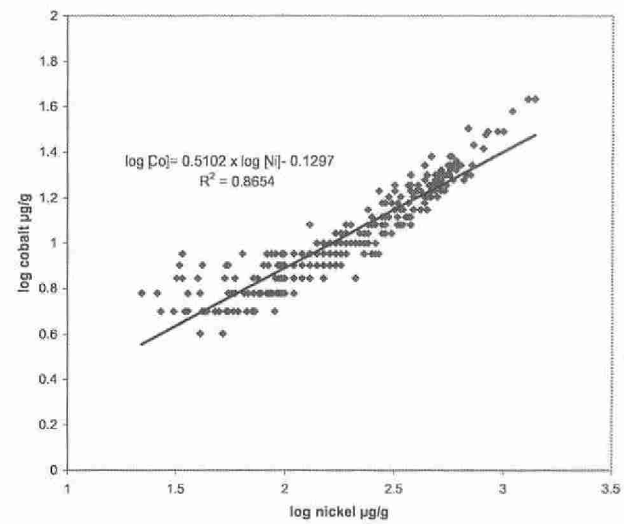


Fig. 10.4.4.6b: log Co vs. log Ni, 10-20 cm, Coniston

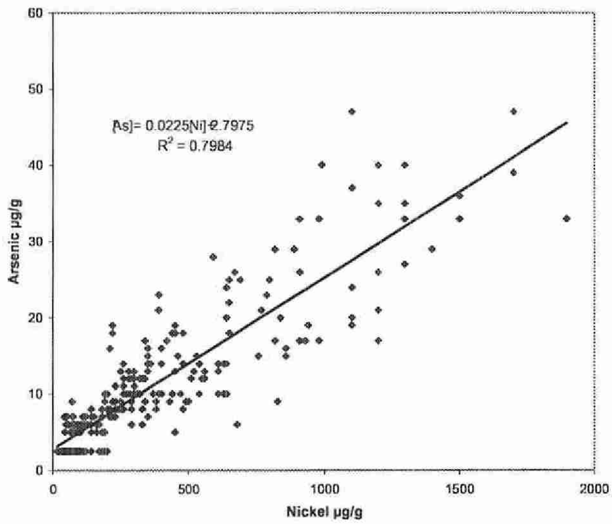


Fig. 10.4.4.7: As vs. Ni, 0-5 cm, Coniston

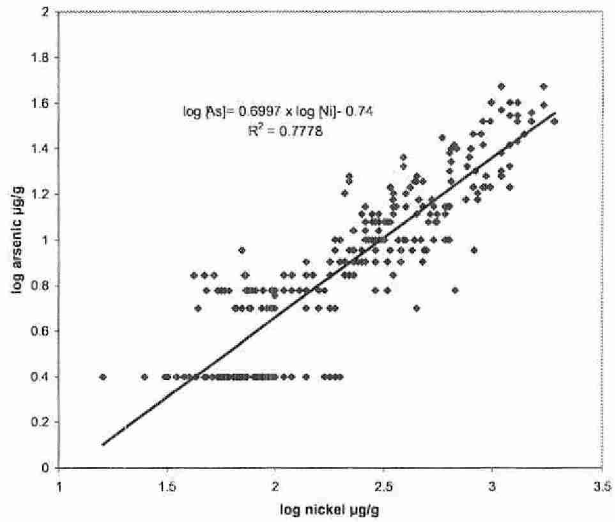


Fig. 10.4.4.7b: log As vs. log Ni, 0-5 cm, Coniston

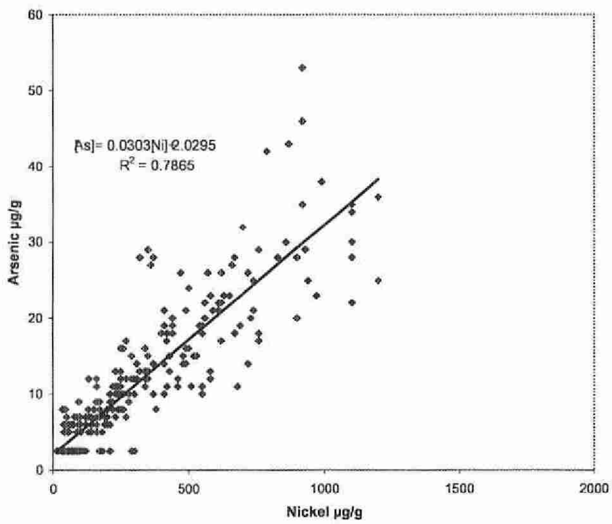


Fig. 10.4.4.8: As vs. Ni, 5-10 cm, Coniston

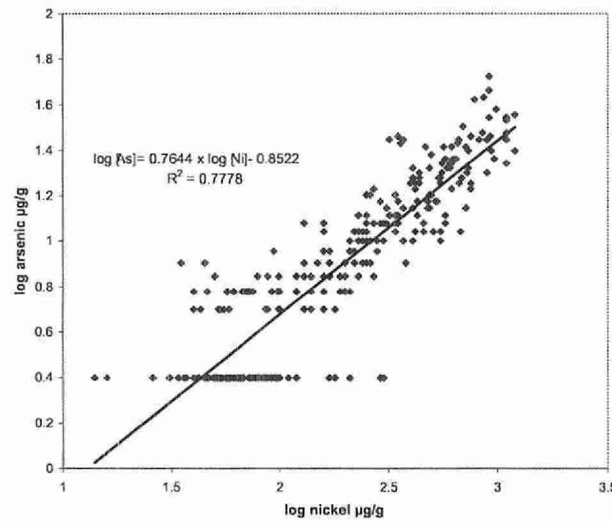


Fig. 10.4.4.8b: log As vs. log Ni, 5-10 cm, Coniston

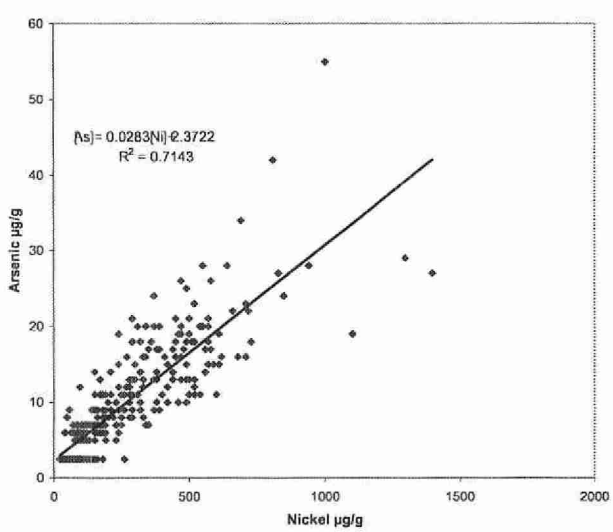


Fig. 10.4.4.9: As vs. Ni, 10-20 cm, Coniston

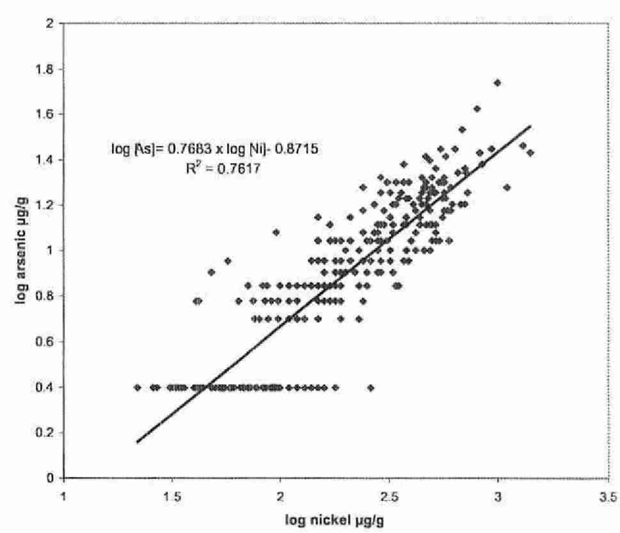


Fig. 10.4.4.9b: log As vs. log Ni, 10-20 cm, Coniston

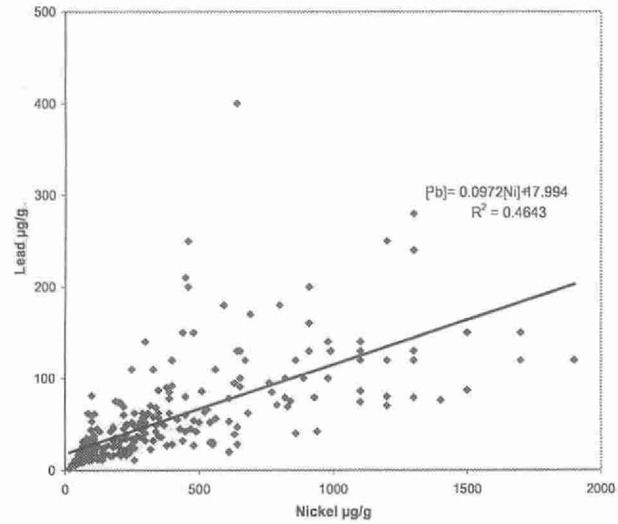


Fig. 10.4.4.10: Pb vs. Ni, 0-5 cm, Coniston

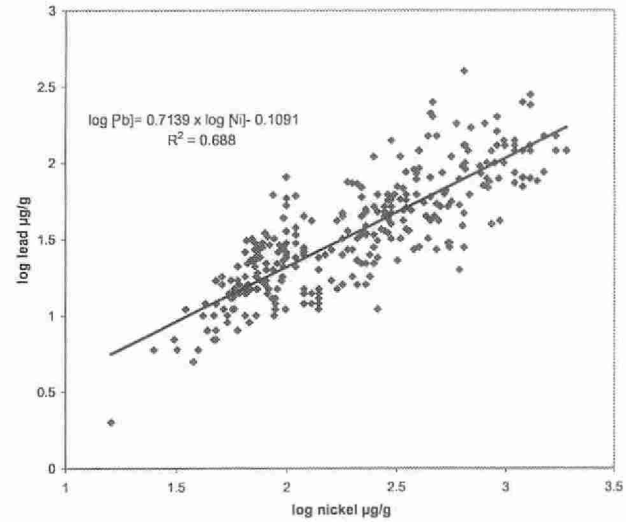


Fig. 10.4.4.10b: log Pb vs. log Ni, 0-5 cm, Coniston

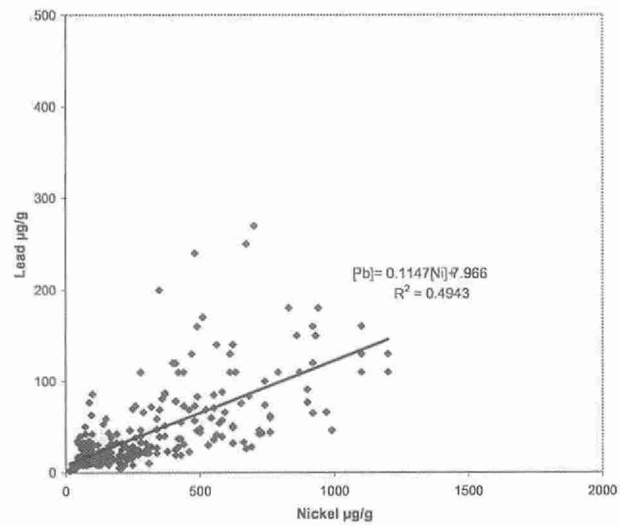


Fig. 10.4.4.11: Pb vs. Ni, 5-10 cm, Coniston

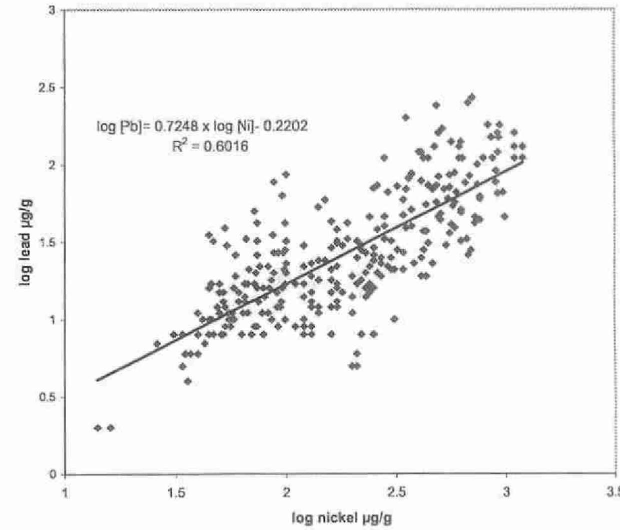


Fig. 10.4.4.11b: log Pb vs. log Ni, 5-10 cm, Coniston

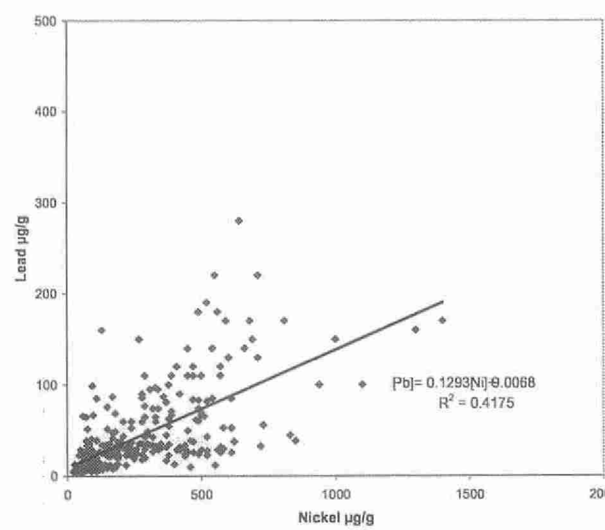


Fig. 10.4.4.12: Pb vs. Ni, 10-20 cm, Coniston

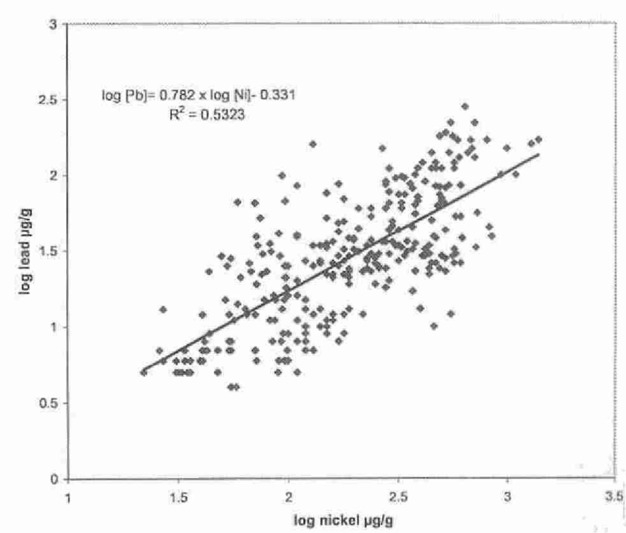


Fig. 10.4.4.12b: log Pb vs. log Ni, 10-20 cm, Coniston

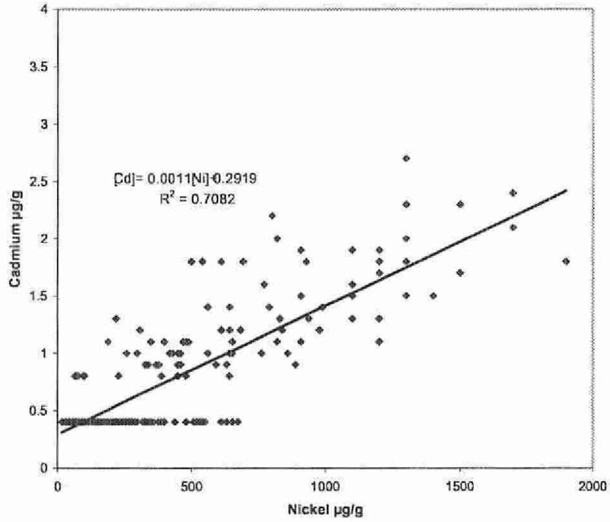


Fig. 10.4.4.13: Cd vs. Ni, 0-5 cm, Coniston

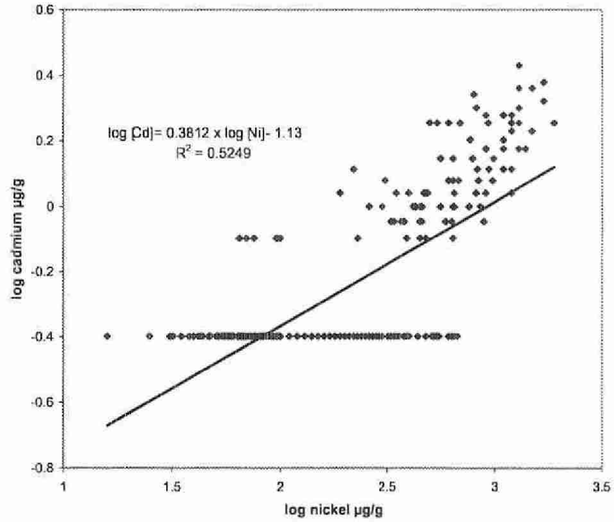


Fig. 10.4.4.13b: log Cd vs. log Ni, 0-5 cm, Coniston

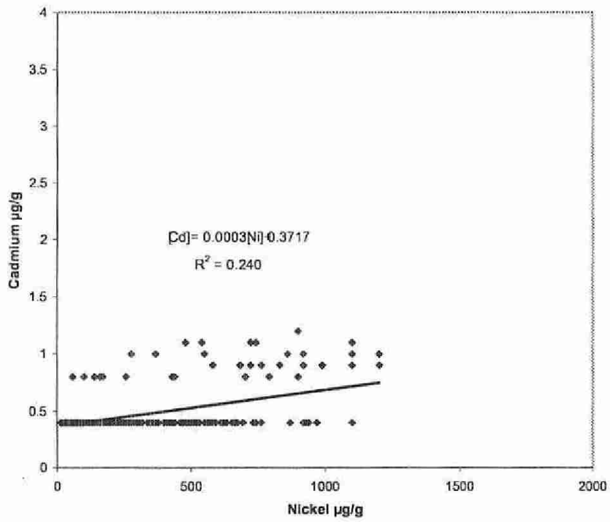


Fig. 10.4.4.14: Cd vs. Ni, 5-10 cm, Coniston

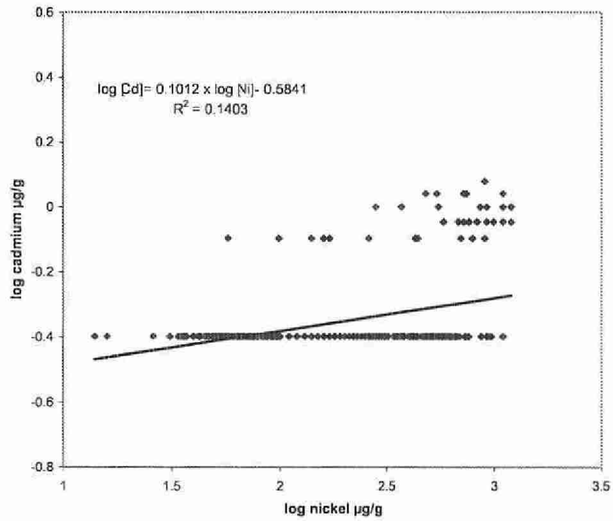


Fig. 10.4.4.14b: log Cd vs. log Ni, 5-10 cm, Coniston

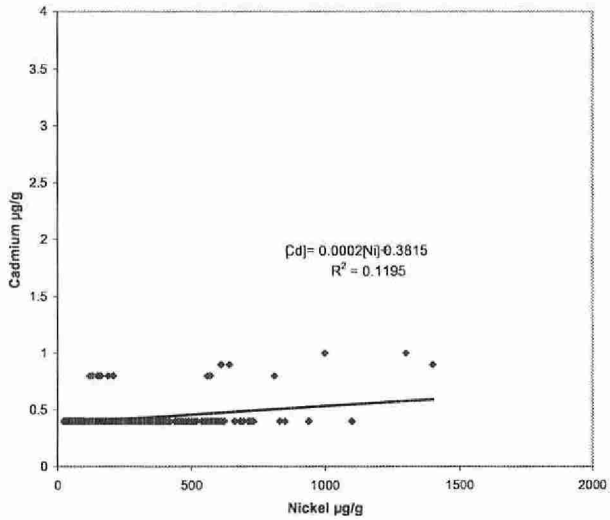


Fig. 10.4.4.15: Cd vs. Ni, 10-20 cm, Coniston

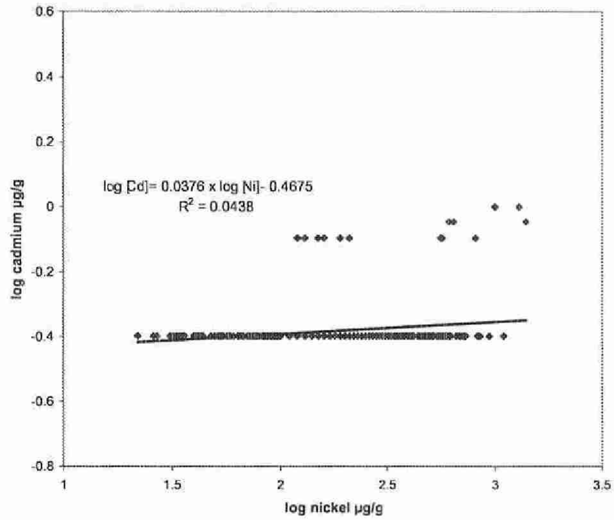


Fig. 10.4.4.15b: log Cd vs. log Ni, 10-20 cm, Coniston

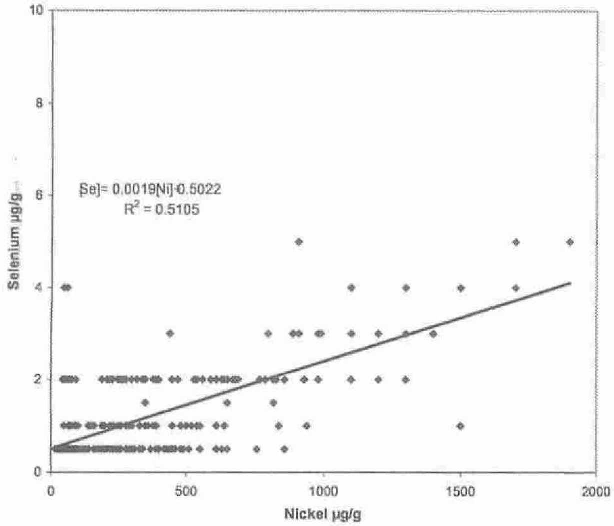


Fig. 10.4.4.16: Se vs. Ni, 0-5cm, Coniston

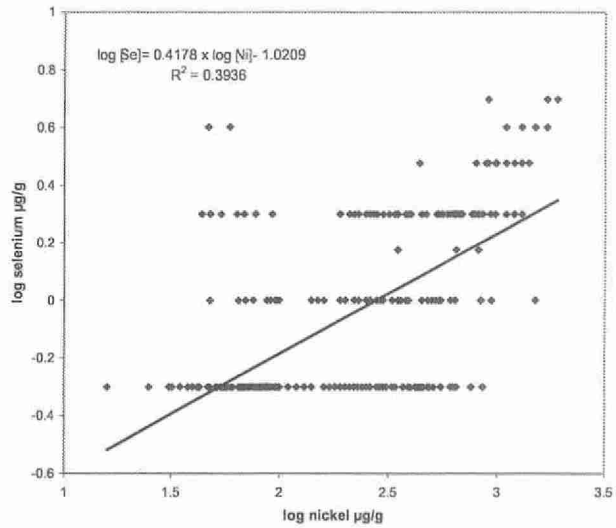


Fig. 10.4.4.16b: log Se vs. log Ni, 0-5cm, Coniston

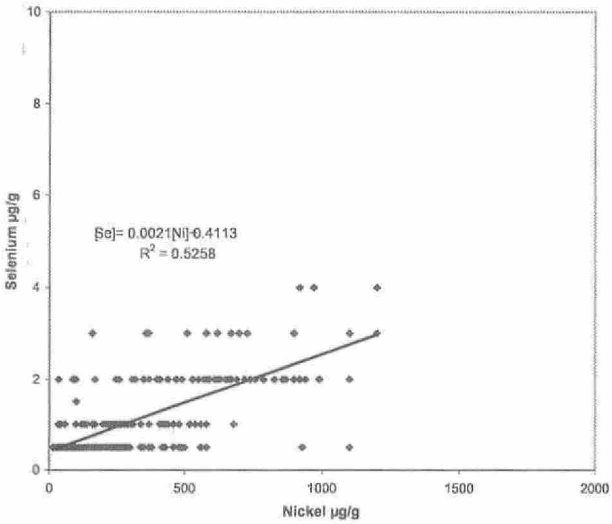


Fig. 10.4.4.17: Se vs. Ni, 5-10cm, Coniston

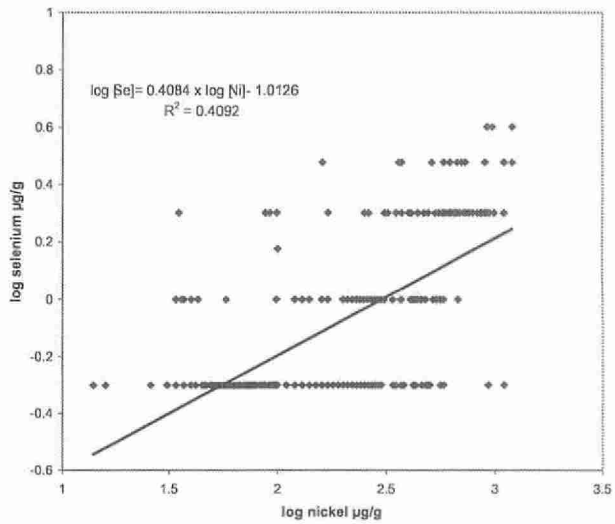


Fig. 10.4.4.17b: log Se vs. log Ni, 5-10cm, Coniston

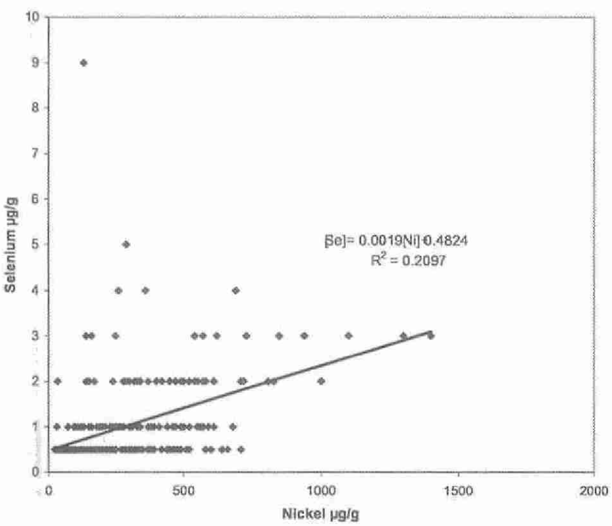


Fig. 10.4.4.18: Se vs. Ni, 10-20cm, Coniston

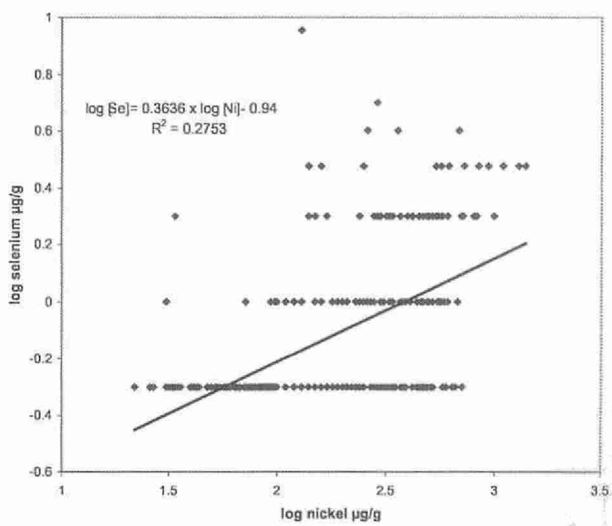


Fig. 10.4.4.18b: log Se vs. log Ni, 10-20cm, Coniston

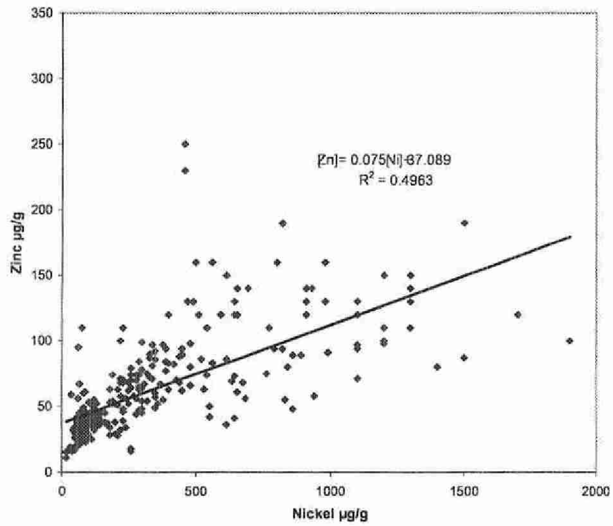


Fig. 10.4.4.19: Zn vs. Ni, 0-5cm, Coniston

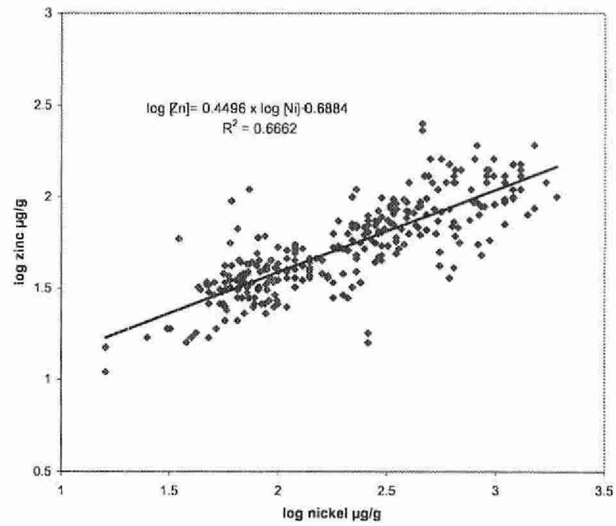


Fig. 10.4.4.19b: log Zn vs. log Ni, 0-5cm, Coniston

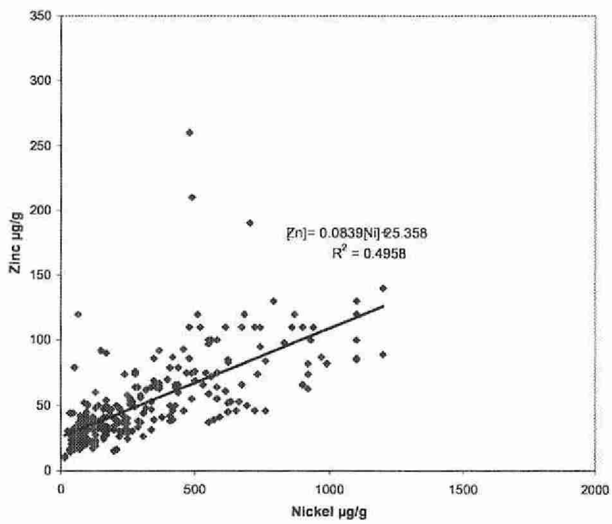


Fig. 10.4.4.20: Zn vs. Ni, 5-10cm, Coniston

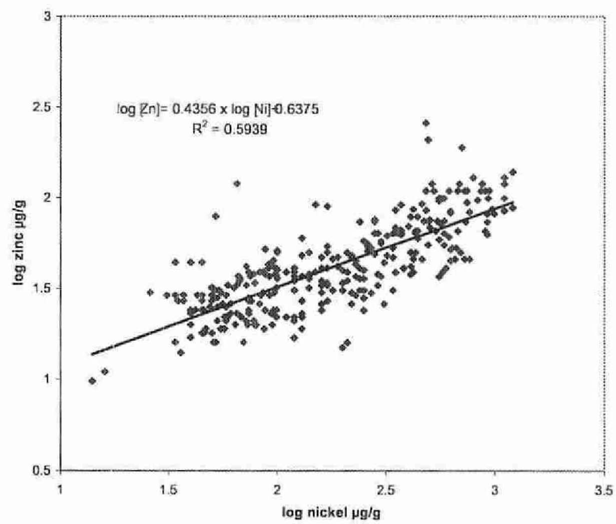


Fig. 10.4.4.20b: log Zn vs. log Ni, 5-10cm, Coniston

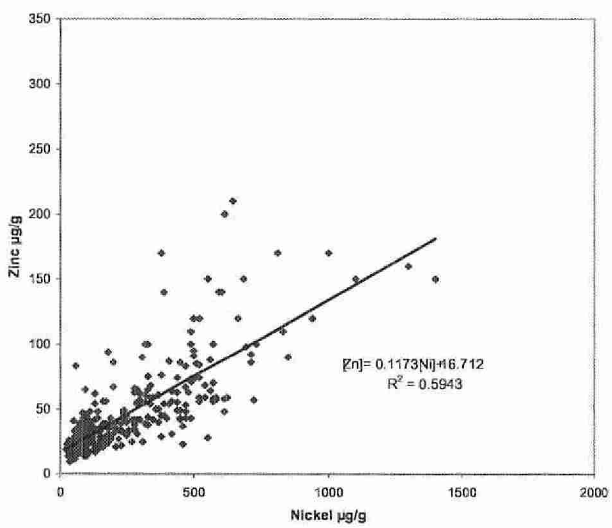


Fig. 10.4.4.21: Zn vs. Ni, 10-20cm, Coniston

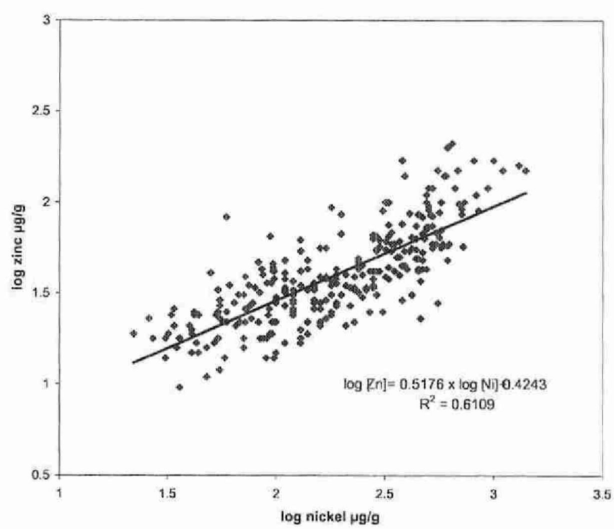


Fig. 10.4.4.21b: log Zn vs. log Ni, 10-20cm, Coniston

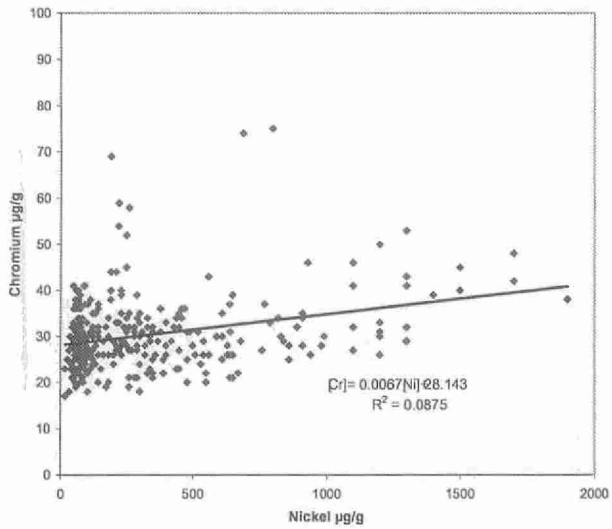


Fig. 10.4.4.22: Cr vs. Ni, 0-5cm, Coniston

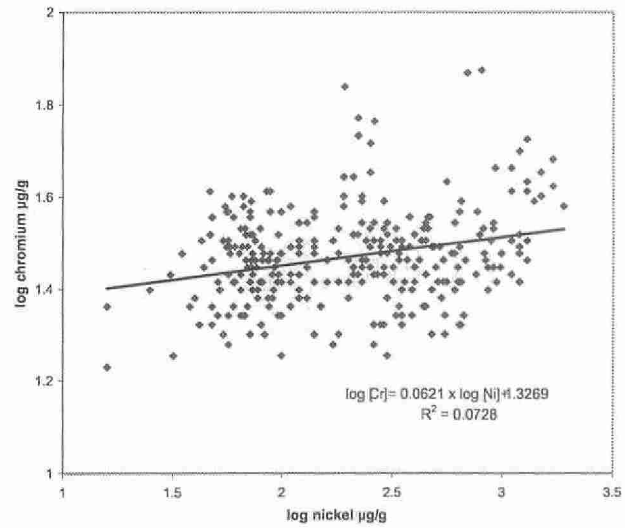


Fig. 10.4.4.22b: log Cr vs. log Ni, 0-5cm, Coniston

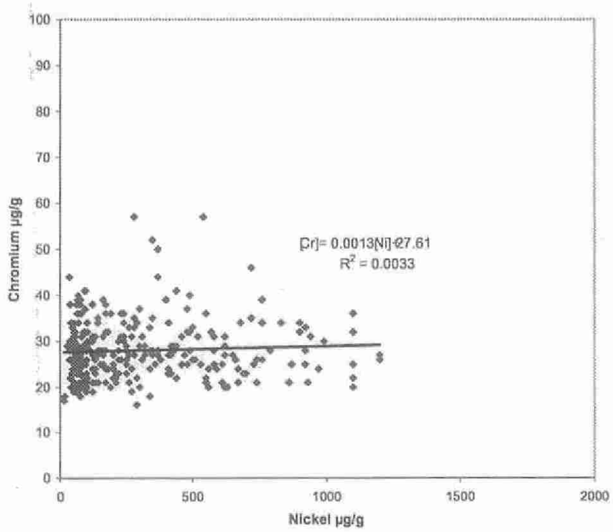


Fig. 10.4.4.23: Cr vs. Ni, 5-10cm, Coniston

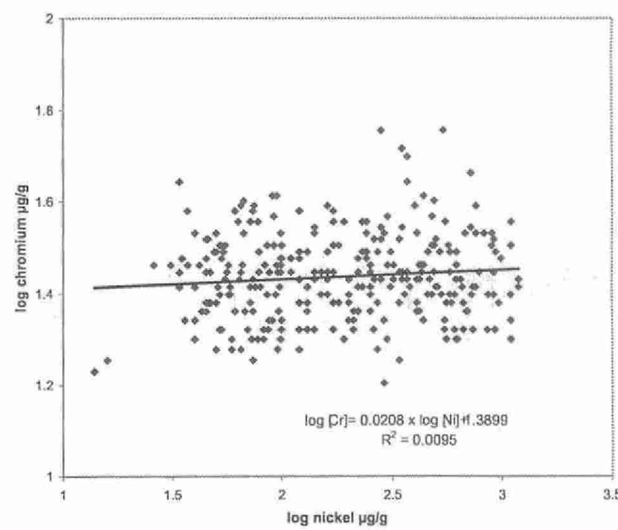


Fig. 10.4.4.23b: log Cr vs. log Ni, 5-10cm, Coniston

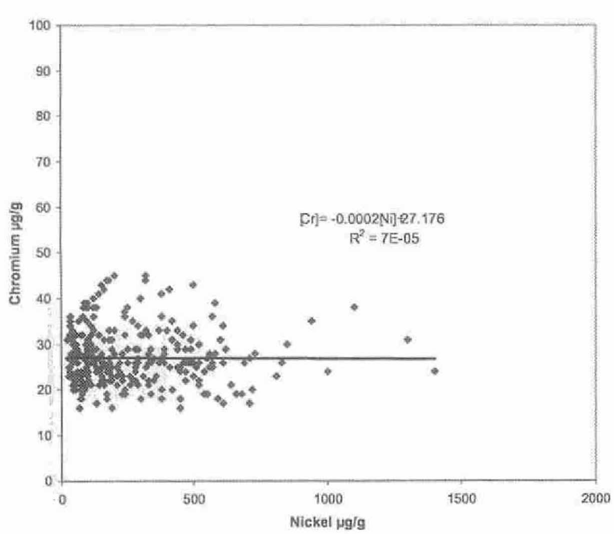


Fig. 10.4.4.24: Cr vs. Ni, 10-20cm, Coniston

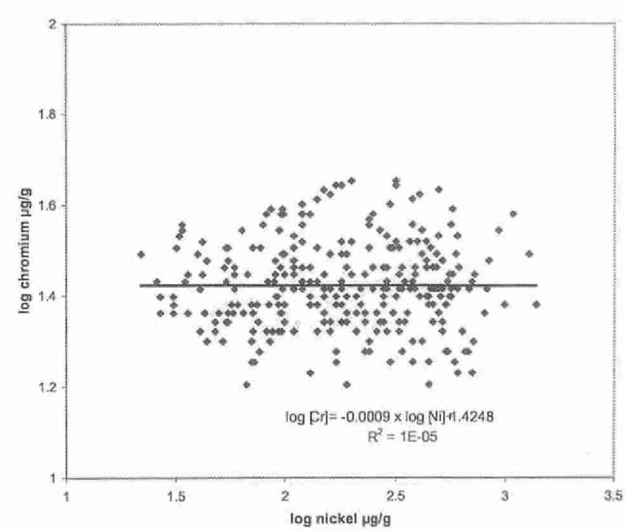


Fig. 10.4.4.24b: log Cr vs. log Ni, 10-20cm, Coniston

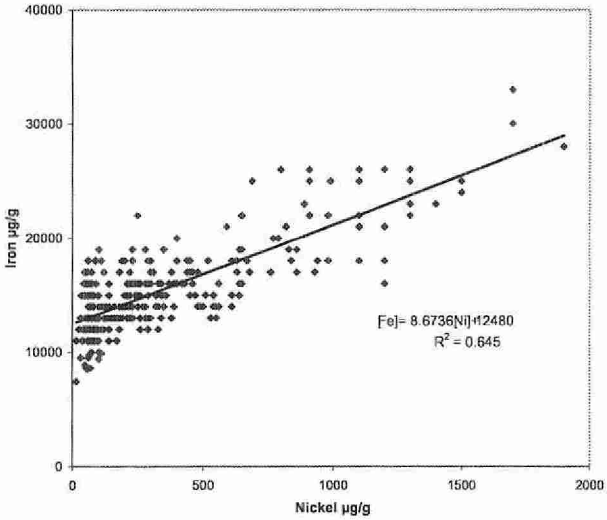


Fig. 10.4.4.25: Fe vs. Ni, 0-5cm, Coniston

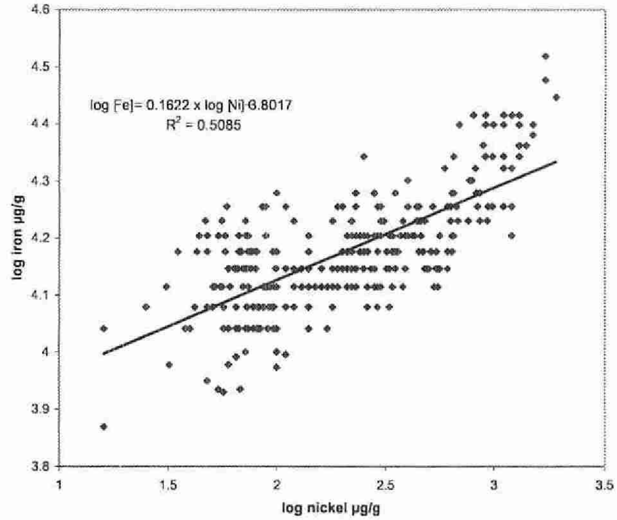


Fig. 10.4.4.25b: log Fe vs. log Ni, 0-5cm, Coniston

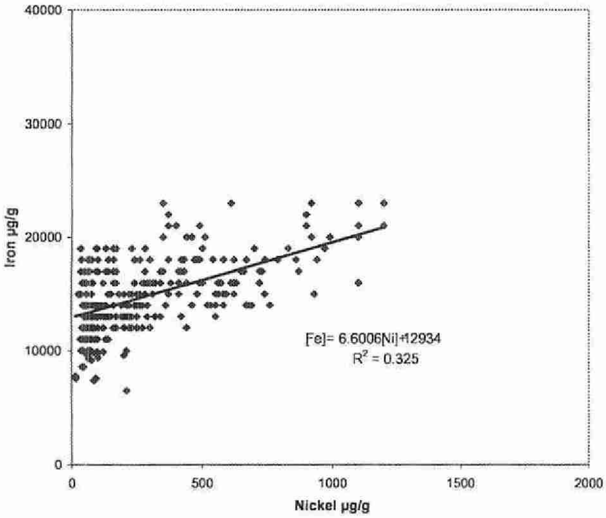


Fig. 10.4.4.26: Fe vs. Ni, 5-10cm, Coniston

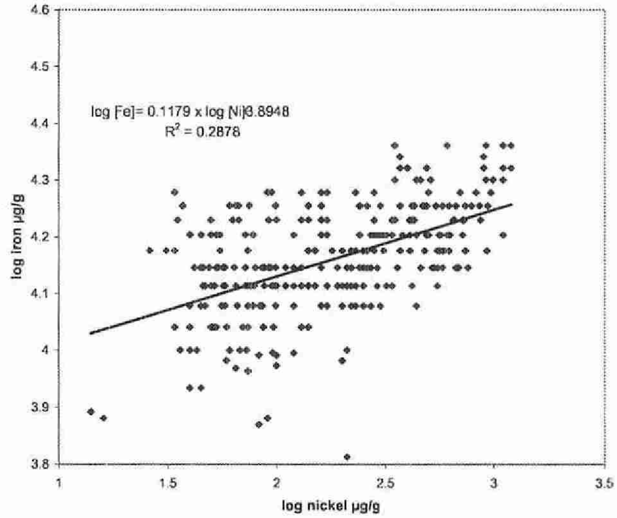


Fig. 10.4.4.26b: log Fe vs. log Ni, 5-10cm, Coniston

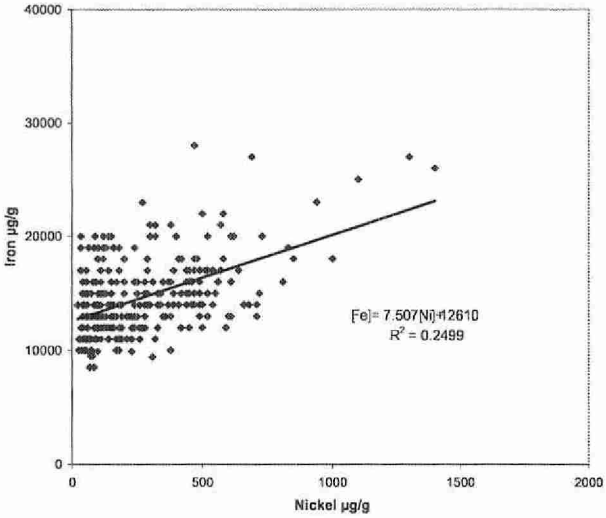


Fig. 10.4.4.27: Fe vs. Ni, 10-20cm, Coniston

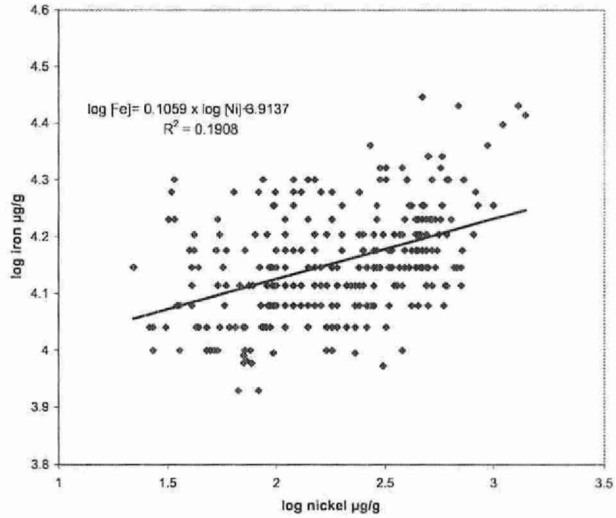


Fig. 10.4.4.27b: log Fe vs. log Ni, 10-20cm, Coniston

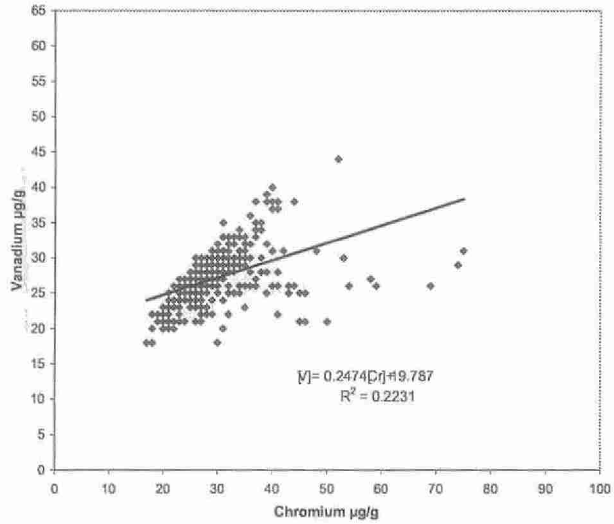


Fig. 10.4.4.28: V vs. Cr, 0-5 cm, Coniston

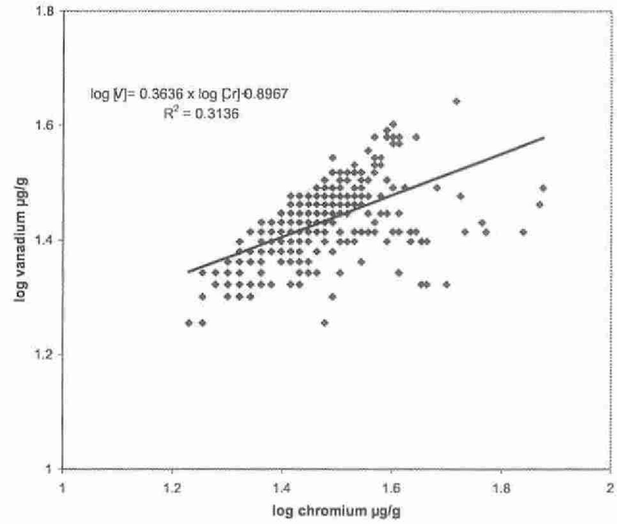


Fig. 10.4.4.28b: log V vs. log Cr, 0-5cm, Coniston

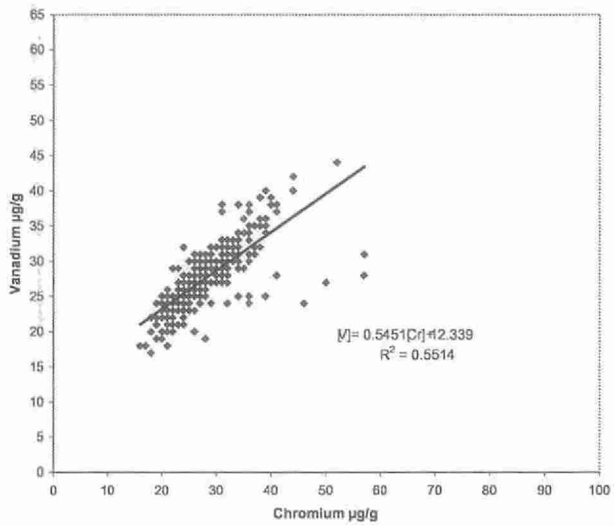


Fig. 10.4.4.29: V vs. Cr, 5-10cm, Coniston

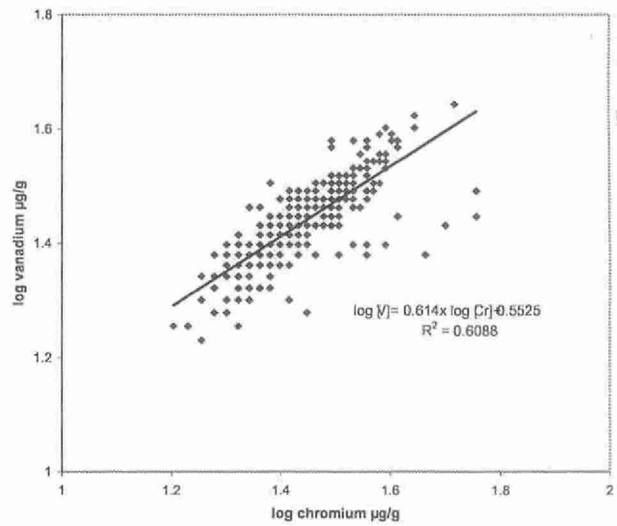


Fig. 10.4.4.29b: log V vs. log Cr, 5-10cm, Coniston

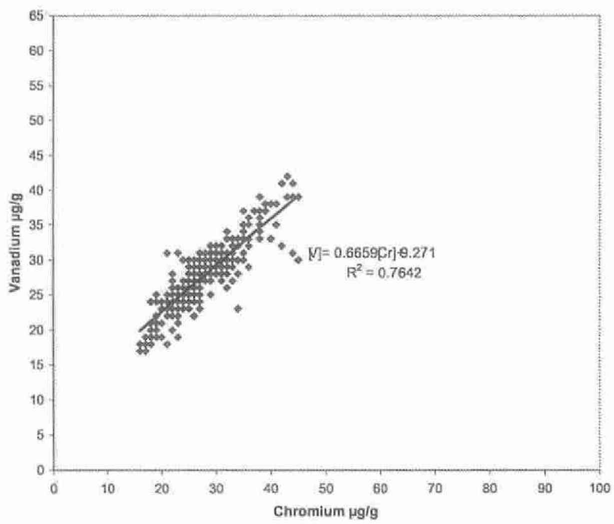


Fig. 10.4.4.30: V vs. Cr, 10-20cm, Coniston

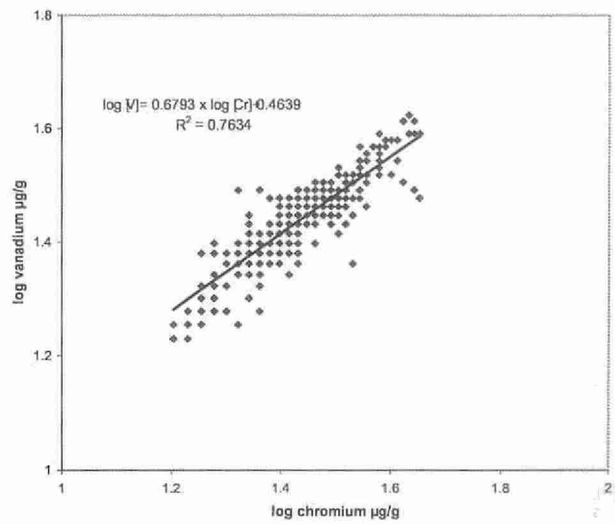


Fig. 10.4.4.30b: log V vs. log Cr, 10-20cm, Coniston

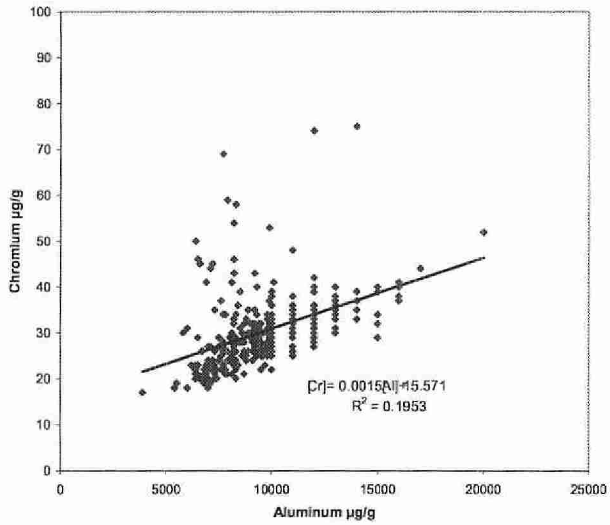


Fig. 10.4.4.31: Cr vs. Al, 0-5cm, Coniston

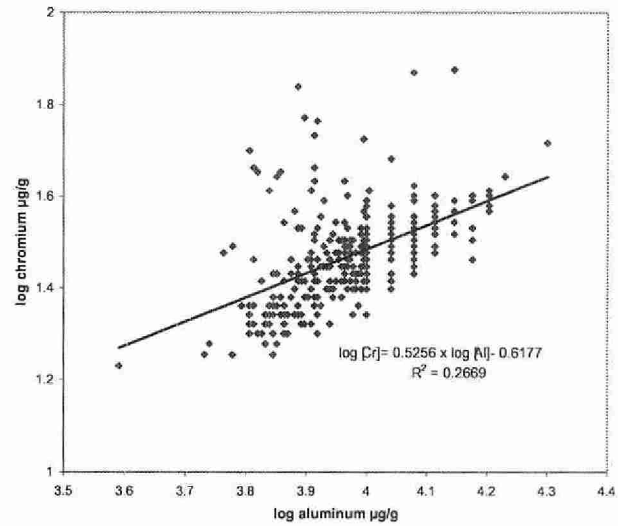


Fig. 10.4.4.31b: log Cr vs. log Al, 0-5cm, Coniston

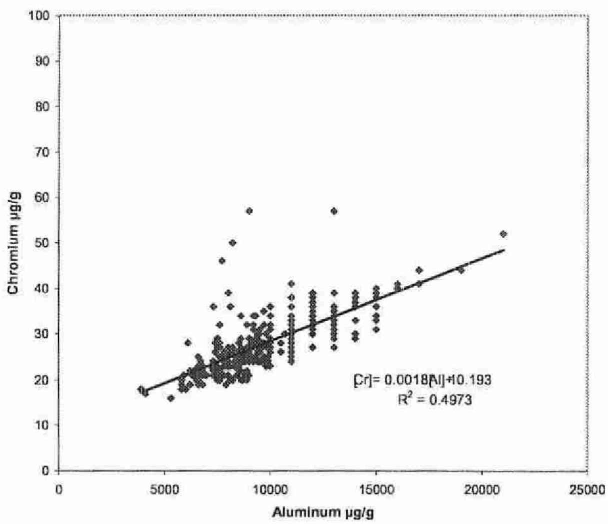


Fig. 10.4.4.32: Cr vs. Al, 5-10cm, Coniston

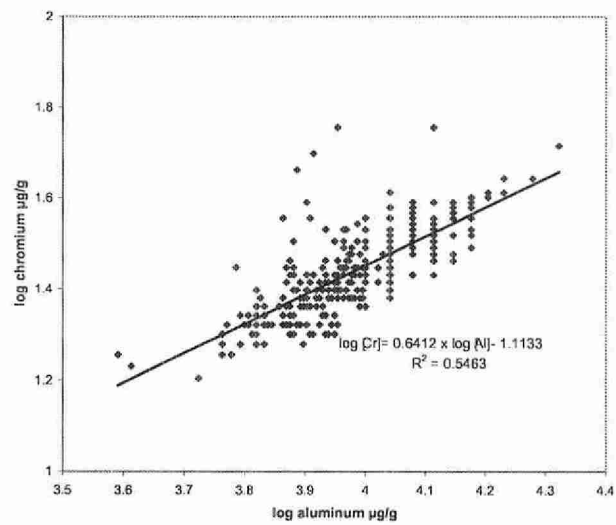


Fig. 10.4.4.32b: log Cr vs. log Al, 5-10cm, Coniston

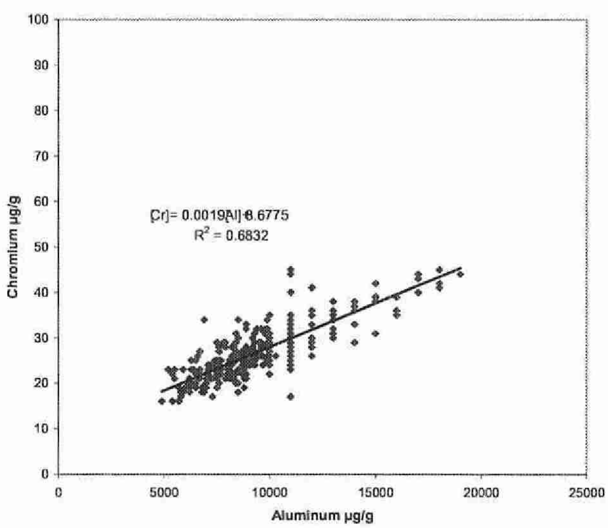


Fig. 10.4.4.33: Cr vs. Al, 10-20cm, Coniston

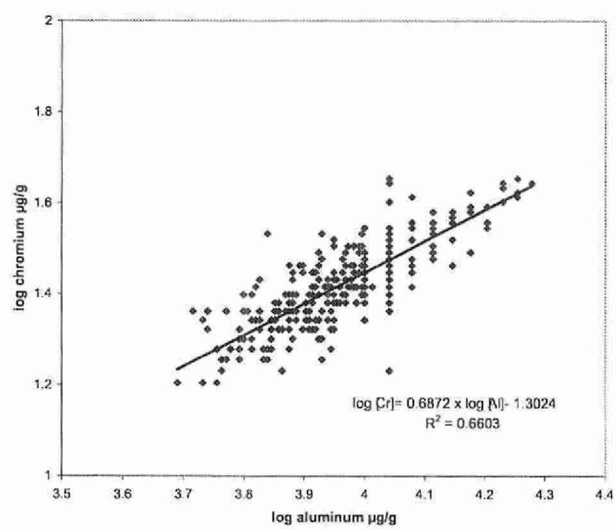


Fig. 10.4.4.33b: log Cr vs. log Al, 10-20cm, Coniston

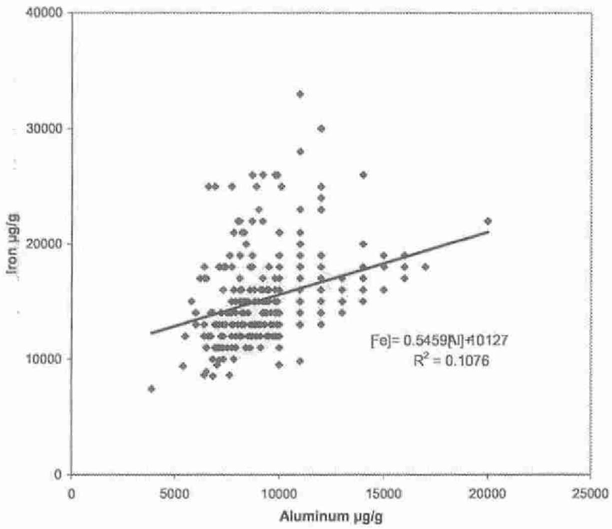


Fig. 10.4.4.34: Fe vs. Al, 0-5cm, Coniston

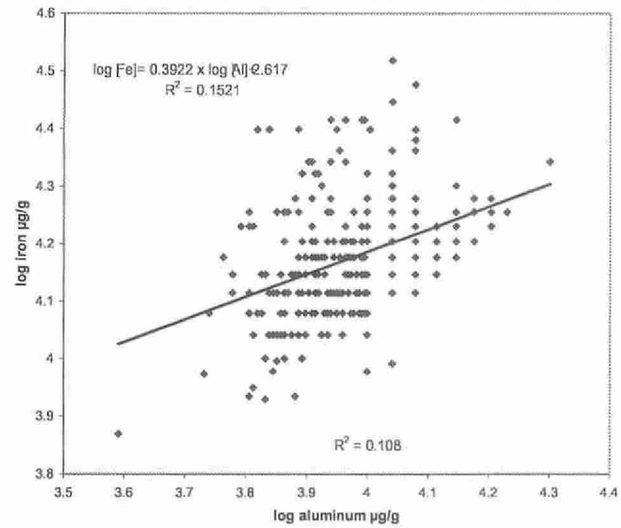


Fig. 10.4.4.34b: log Fe vs. log Al, 0-5cm, Coniston

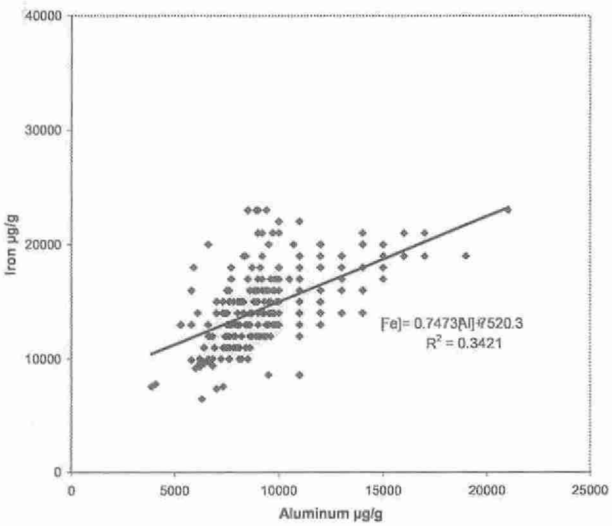


Fig. 10.4.4.35: Fe vs. Al, 5-10cm, Coniston

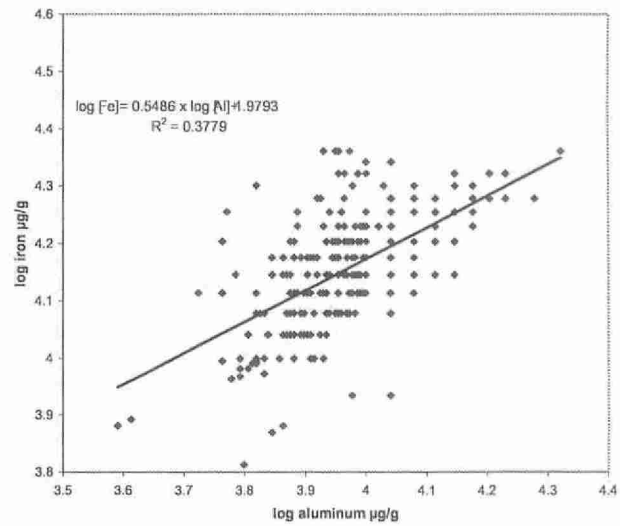


Fig. 10.4.4.35b: log Fe vs. log Al, 5-10cm, Coniston

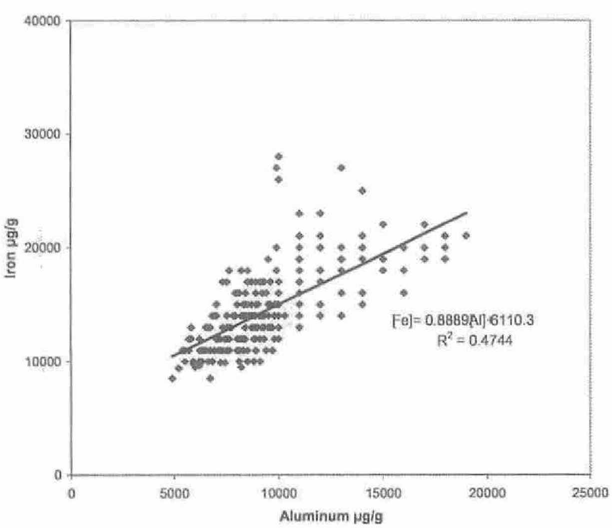


Fig. 10.4.4.36: Fe vs. Al, 10-20cm, Coniston

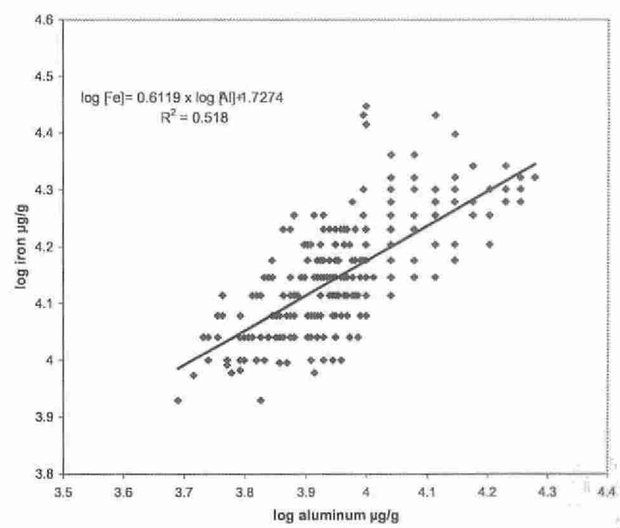


Fig. 10.4.4.36b: log Fe vs. log Al, 10-20cm, Coniston

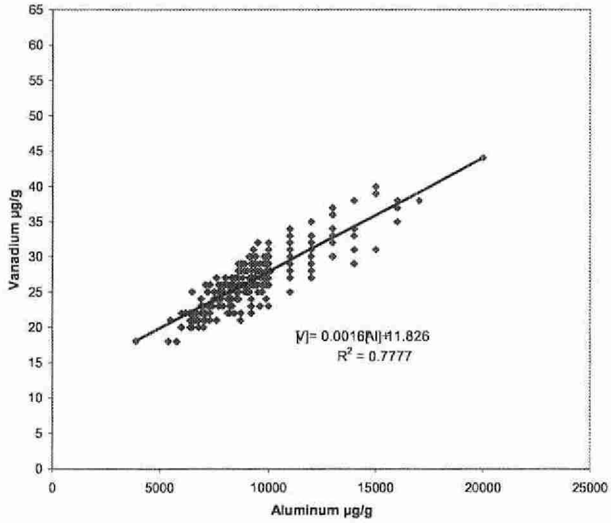


Fig. 10.4.4.37: V vs. Al, 0-5cm, Coniston

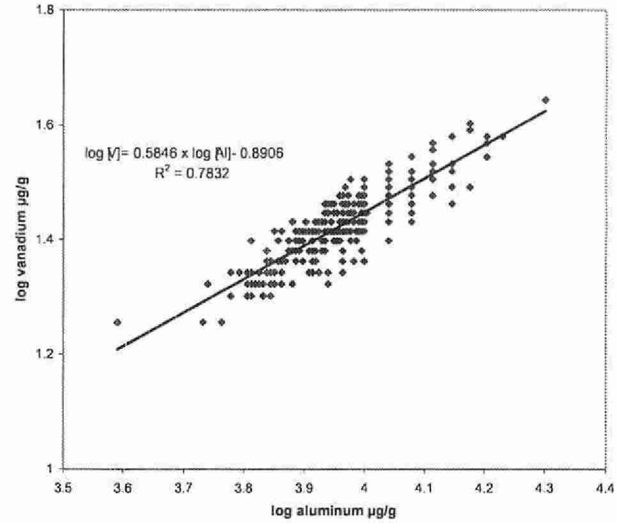


Fig. 10.4.4.37b: log V vs. log Al, 0-5cm, Coniston

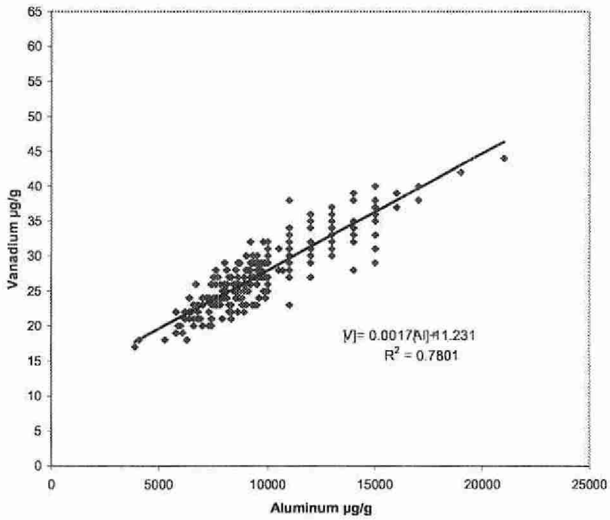


Fig. 10.4.4.38: V vs. Al, 5-10cm, Coniston

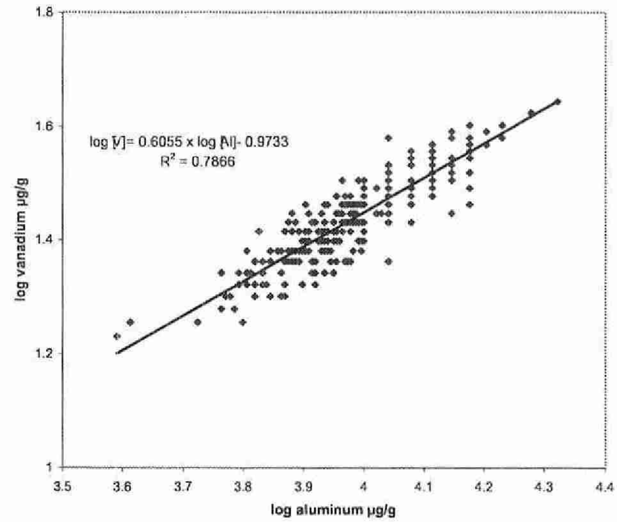


Fig. 10.4.4.38b: log V vs. log Al, 5-10cm, Coniston

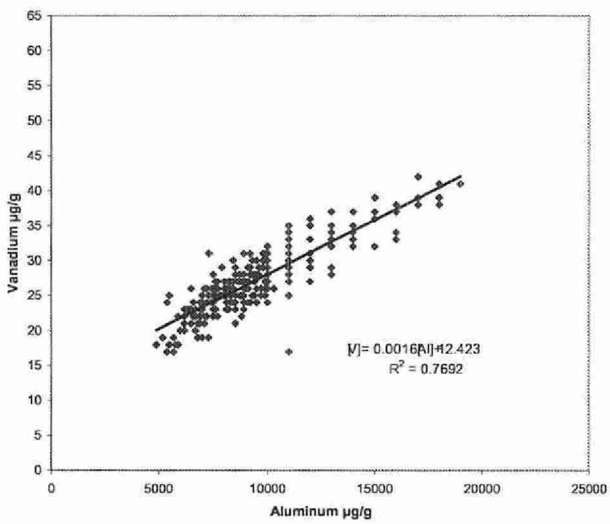


Fig. 10.4.4.39: V vs. Al, 10-20cm, Coniston

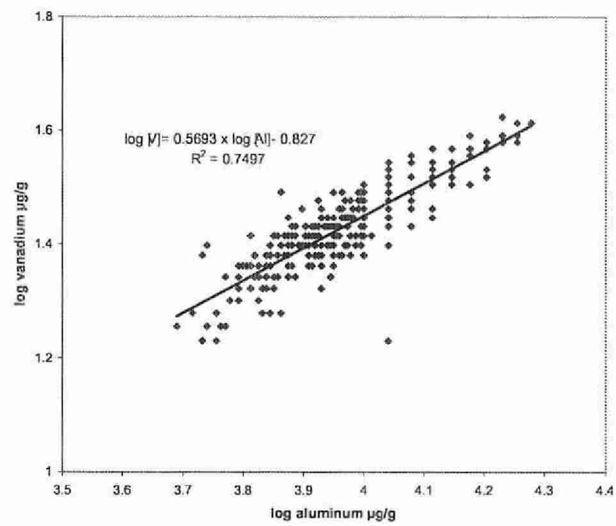


Fig. 10.4.4.39b: log V vs. log Al, 10-20cm, Coniston

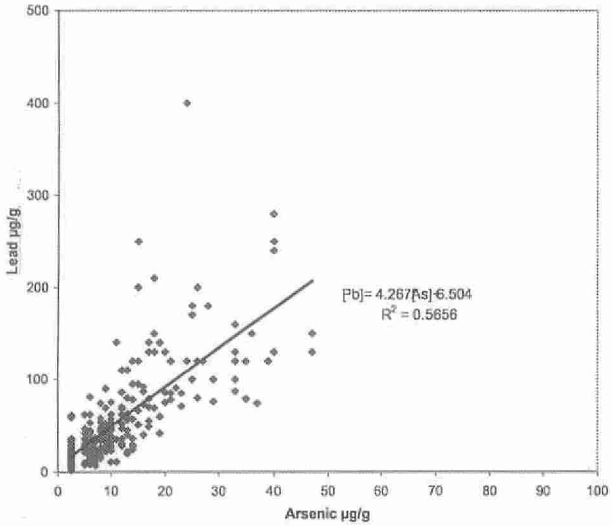


Fig. 10.4.4.40: Pb vs. As, 0-5cm, Coniston

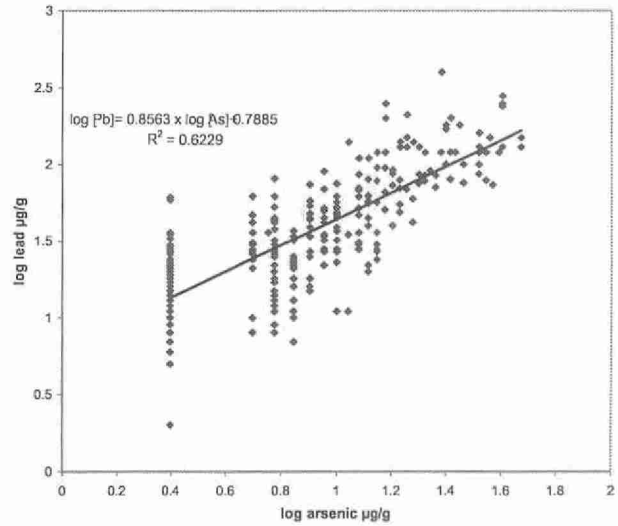


Fig. 10.4.4.40b: log Pb vs. log As, 0-5cm, Coniston

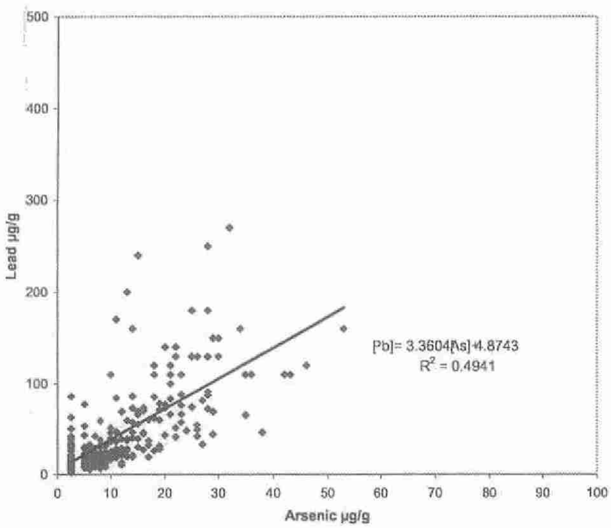


Fig. 10.4.4.41: Pb vs. As, 5-10cm, Coniston

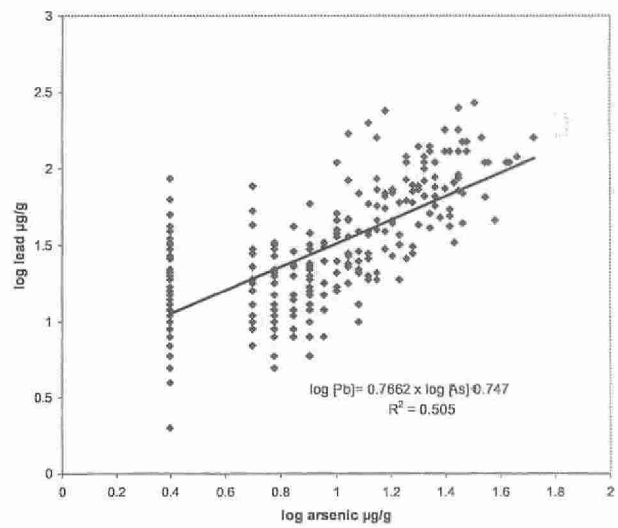


Fig. 10.4.4.41b: log Pb vs. log As, 5-10cm, Coniston

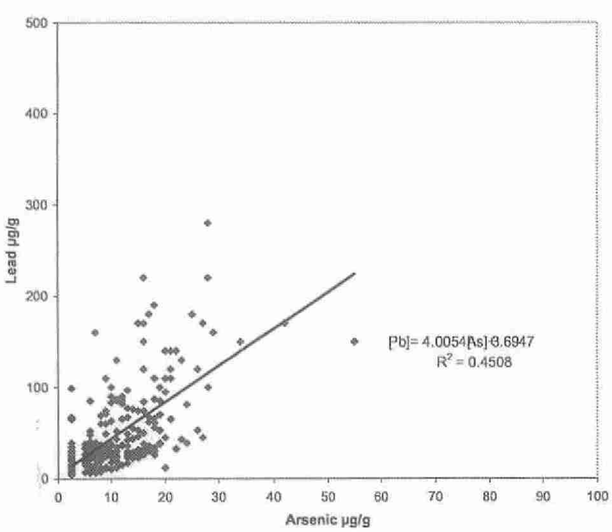


Fig. 10.4.4.42: Pb vs. As, 10-20cm, Coniston

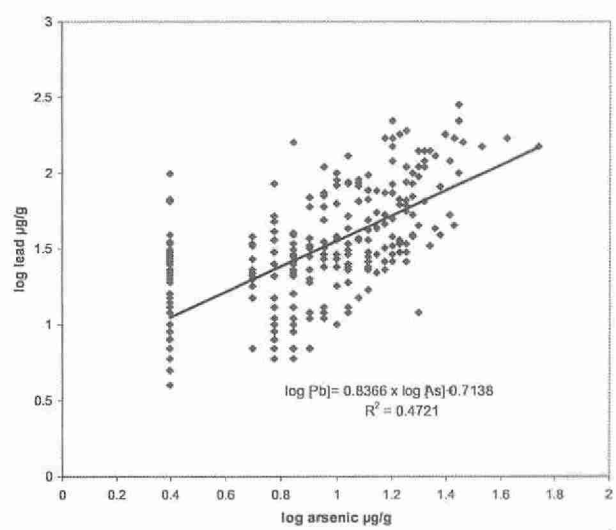


Fig. 10.4.4.42b: log Pb vs. log As, 10-20cm, Coniston

Table 10.4.4.1: Pearsons and Spearmans Correlations for 0 to 5 cm Urban Soil in Coniston

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*-0.07*	*-0.15*	*0.47*	*-0.12*	*0.26*	*0.56*	*-0.07*	*-0.17*	*0.40*	*-0.23*	*0.52*	*0.62*	*-0.02*	*-0.15*	*-0.15*	***0.81***	***0.87***	*-0.07*
Sb	-0.07	1	*0.18*	*0.13*	*0.34*	*-0.06*	*0.00*	*0.16*	*0.18*	*0.18*	*0.23*	*0*	*0.01*	*0.25*	*0.17*	*0.31*	*-0.07*	*-0.11*	*0.20*
As	-0.11	0.11	1	*0.45*	*0.65*	*0.35*	*0.16*	***0.86***	***0.9***	*0.63*	***0.8***	*-0.1*	*0.05*	*0.05*	***0.89***	*0.64*	*0.00*	*-0.10*	***0.75***
Ba	0.45	0.19	0.42	1	*0.39*	*0.49*	*0.57*	*0.56*	*0.51*	*0.68*	*0.46*	*0.3*	*0.63*	*0.01*	*0.52*	*0.31*	*0.59*	*0.43*	*0.62*
Cd	-0.12	0.26	**0.75**	0.37	1	*0.41*	*0.34*	*0.69*	*0.69*	*0.57*	*0.66*	*0*	*0.12*	*0.21*	*0.69*	*0.60*	*0.03*	*-0.09*	*0.65*
Ca	0.15	-0.05	0.19	0.28	0.35	1	*0.41*	*0.51*	*0.43*	*0.44*	*0.31*	*0.55*	*0.54*	*-0.01*	*0.47*	*0.21*	*0.53*	*0.27*	*0.51*
Cr	0.44	0.09	0.28	0.45	0.47	0.24	1	*0.31*	*0.19*	*0.58*	*0.14*	*0.55*	*0.59*	*0.03*	*0.21*	*0.17*	*0.54*	*0.62*	*0.31*
Co	-0.10	0.15	**0.88**	0.44	**0.87**	0.35	0.34	1	***0.95***	*0.74*	***0.79***	*0.1*	*0.18*	*0.00*	***0.97***	*0.61*	*0.08*	*-0.03*	***0.84***
Cu	-0.12	0.17	**0.92**	0.46	**0.84**	0.28	0.30	**0.98**	1	*0.64*	***0.85***	*-0.1*	*0.05*	*0.01*	***0.99***	*0.62*	*0.00*	*-0.15*	***0.82***
Fe	0.33	0.17	**0.78**	0.61	0.72	0.28	0.53	**0.83**	**0.83**	1	*0.54*	*0.33*	*0.45*	*-0.01*	*0.65*	*0.51*	*0.40*	*0.45*	*0.60*
Pb	-0.16	0.21	**0.75**	0.51	0.65	0.14	0.24	0.68	0.73	0.61	1	*-0.1*	*0.00*	*0.04*	***0.83***	*0.58*	*-0.08*	*-0.19*	*0.83*
Mg	0.40	-0.07	-0.15	0.16	-0.03	0.60	0.29	-0.04	-0.12	0.13	-0.13	1	*0.64*	*0.03*	*-0.07*	*-0.06*	*0.47*	*0.61*	*0.07*
Mn	0.60	-0.02	0.05	0.56	0.11	0.47	0.43	0.11	0.05	0.33	0.03	0.56	1	*0.02*	*0.09*	*0.03*	*0.70*	*0.65*	*0.25*
Mo	-0.04	0.06	0.09	0.06	0.14	0.01	0.04	0.05	0.06	0.07	0.03	0	0.02	1	*0.02*	*0.19*	*-0.02*	*0.03*	*0.01*
Ni	-0.11	0.13	**0.89**	0.43	**0.84**	0.33	0.30	**0.99**	**0.98**	**0.8**	0.68	-0.09	0.08	0.05	1	*0.60*	*0.02*	*-0.12*	***0.82***
Se	-0.03	0.20	0.74	0.35	0.65	0.15	0.29	0.71	0.74	0.68	0.58	-0.06	0.08	0.22	0.71	1	*-0.03*	*-0.08*	*0.55*
Sr	0.70	-0.11	0.00	0.48	0.02	0.61	0.37	0.04	0.01	0.29	-0.02	0.49	0.72	-0.03	0.03	0.03	1	***0.75***	*0.11*
V	**0.88**	-0.13	-0.07	0.37	-0.10	0.15	0.47	-0.08	-0.12	0.35	-0.13	0.45	0.64	0.02	-0.11	0.01	0.67	1	*-0.07*
Zn	-0.10	0.24	0.69	0.65	0.71	0.39	0.35	0.71	0.73	0.61	**0.77**	0.00	0.23	0.05	0.70	0.49	0.15	-0.11	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.4.2: Pearsons and Spearmans Correlations for 5 to 10 cm Urban Soil in Coniston

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	0.03	-0.02	0.46	-0.04	0.40	0.75	0.02	-0.08	0.59	-0.15	0.60	0.65	0.06	-0.09	-0.08	0.77	0.88	0.03
Sb	0.03	1	0.16	0.21	0.22	-0.01	-0.04	0.16	0.18	0.21	0.20	-0.05	0.1	0.30	0.15	0.18	0.05	-0.05	0.18
As	-0.06	0.08	1	0.49	0.32	0.29	0.05	**0.87**	**0.9**	0.55	0.71	-0.33	0.1	0.01	**0.89**	0.67	0.08	-0.07	0.71
Ba	0.41	0.21	0.50	1	0.24	0.54	0.53	0.60	0.54	0.70	0.50	0.23	0.65	0.03	0.53	0.36	0.61	0.40	0.67
Cd	-0.05	0.06	0.40	0.31	1	0.17	0.17	0.37	0.36	0.28	0.36	-0.09	0.1	0.37	0.36	0.36	0.08	-0.03	0.36
Ca	0.20	0.01	0.07	0.21	0.09	1	0.47	0.40	0.33	0.39	0.19	0.40	0.57	0.03	0.37	0.14	0.67	0.40	0.43
Cr	0.71	-0.01	0.02	0.40	0.27	0.21	1	0.20	0.05	0.60	-0.02	0.64	0.71	0.07	0.07	0.03	0.68	**0.81**	0.18
Co	-0.03	0.08	**0.86**	0.54	0.52	0.18	0.13	1	**0.94**	0.66	0.74	-0.15	0.19	0.01	**0.96**	0.65	0.15	0.01	**0.81**
Cu	-0.07	0.12	**0.9**	0.59	0.48	0.12	0.05	**0.96**	1	0.54	**0.81**	-0.33	0.1	0.00	**0.98**	0.64	0.08	-0.11	**0.79**
Fe	0.58	0.14	0.56	0.67	0.32	0.16	0.54	0.65	0.62	1	0.42	0.31	0.57	0.07	0.52	0.42	0.49	0.58	0.54
Pb	-0.11	0.19	0.70	0.66	0.38	0.02	-0.03	0.69	**0.77**	0.45	1	-0.33	0	0.07	0.77	0.54	0.03	-0.16	**0.82**
Mg	0.51	-0.01	-0.29	0.10	-0.10	0.50	0.47	-0.19	-0.30	0.26	-0.30	1	0.64	0.11	-0.31	-0.22	0.47	0.68	-0.11
Mn	0.64	0.07	0.06	0.55	0.05	0.44	0.61	0.11	0.05	0.52	0.04	0.52	1	0.02	0.06	0.03	0.71	0.70	0.28
Mo	0.06	0.09	-0.03	0.06	0.28	0.02	0.09	-0.01	-0.02	0.09	0.05	0.06	0.01	1	-0.01	0.16	0.05	0.07	0.04
Ni	-0.08	0.07	**0.89**	0.52	0.49	0.15	0.06	**0.97**	**0.96**	0.57	0.70	-0.28	0.04	-0.04	1	0.62	0.08	-0.12	**0.78**
Se	-0.08	0.13	0.73	0.43	0.38	0.07	0.02	**0.75**	**0.76**	0.50	0.59	-0.18	0.04	0.05	0.73	1	0.03	-0.09	0.54
Sr	0.69	0.06	0.04	0.48	0.06	0.66	0.58	0.08	0.06	0.42	0.04	0.47	0.71	0.07	0.05	0.00	1	0.72	0.23
V	**0.88**	-0.03	-0.10	0.33	-0.05	0.18	0.74	-0.09	-0.14	0.57	-0.16	0.58	0.68	0.07	-0.15	-0.10	0.66	1	-0.02
Zn	-0.01	0.14	0.61	0.73	0.47	0.34	0.14	0.72	0.71	0.48	**0.81**	-0.09	0.27	0.02	0.70	0.50	0.26	-0.07	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.4.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Coniston

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.03*	*0.10*	*0.54*	*0.00*	*0.58*	***0.79***	*0.21*	*0.08*	*0.72*	*-0.05*	*0.55*	*0.64*	*0*	*0.08*	*-0.02*	***0.8***	***0.86***	*0.21*
Sb	0.02	1	*0.35*	*0.39*	*0.52*	*0.05*	*-0.02*	*0.41*	*0.38*	*0.24*	*0.44*	*-0.05*	*0.19*	*0.36*	*0.37*	*0.28*	*0.09*	*0.00*	*0.41*
As	0.04	0.39	1	*0.55*	*0.14*	*0.30*	*-0.01*	***0.87***	***0.91***	*0.48*	*0.70*	*-0.28*	*0.13*	*0*	***0.89***	*0.53*	*0.17*	*0.02*	*0.70*
Ba	0.43	0.50	0.63	1	*0.16*	*0.62*	*0.50*	*0.68*	*0.60*	*0.69*	*0.50*	*0.21*	*0.66*	*0*	*0.60*	*0.29*	*0.64*	*0.48*	***0.75***
Cd	-0.01	0.39	0.32	0.40	1	*0.10*	*-0.03*	*0.19*	*0.17*	*0.16*	*0.20*	*0.02*	*0.14*	*0.69*	*0.18*	*0.23*	*0.11*	*0.03*	*0.20*
Ca	0.32	0.02	0.17	0.26	0.10	1	*0.54*	*0.44*	*0.31*	*0.53*	*0.12*	*0.41*	*0.63*	*0*	*0.38*	*0.12*	*0.80*	*0.50*	*0.47*
Cr	**0.83**	0.02	-0.03	0.38	-0.04	0.23	1	*0.17*	*-0.03*	*0.66*	*-0.15*	***0.75***	*0.73*	*0*	*0.00*	*-0.06*	*0.69*	***0.86***	*0.16*
Co	0.16	0.43	**0.83**	0.72	0.34	0.28	0.13	1	***0.93***	*0.59*	*0.69*	*-0.05*	*0.31*	*0*	***0.95***	*0.51*	*0.28*	*0.12*	***0.82***
Cu	0.06	0.43	**0.87**	0.71	0.32	0.17	-0.02	**0.94**	1	*0.43*	***0.76***	*-0.31*	*0.11*	*0*	***0.97***	*0.56*	*0.17*	*-0.03*	***0.78***
Fe	0.69	0.35	0.50	0.66	0.22	0.27	0.63	0.64	0.53	1	*0.26*	*0.49*	*0.68*	*0*	*0.43*	*0.22*	*0.61*	*0.72*	*0.49*
Pb	-0.09	0.59	0.67	0.66	0.29	0.03	-0.16	0.62	0.73	0.28	1	*-0.34*	*0.07*	*0*	*0.71*	*0.42*	*0.07*	*-0.14*	***0.77***
Mg	0.61	-0.01	-0.27	0.14	-0.03	0.42	0.72	-0.09	-0.29	0.48	-0.31	1	*0.61*	*0.1*	*-0.26*	*-0.26*	*0.42*	*0.64*	*-0.05*
Mn	0.66	0.22	0.22	0.63	0.18	0.42	0.71	0.38	0.23	0.66	0.11	0.61	1	*0*	*0.14*	*0.05*	*0.72*	*0.72*	*0.38*
Mo	0.00	0.14	-0.06	-0.05	0.60	0.03	-0.03	-0.01	-0.04	0.01	-0.04	0.03	0.00	1	*0.02*	*0.12*	*0.02*	*0.03*	*0*
Ni	0.06	0.38	**0.85**	0.68	0.35	0.25	-0.01	**0.97**	**0.96**	0.50	0.65	-0.25	0.25	0	1	*0.56*	*0.21*	*-0.03*	*0.79*
Se	0.04	0.17	0.40	0.32	0.14	0.08	0.01	0.44	0.45	0.28	0.31	-0.15	0.11	0	0.46	1	*0.11*	*-0.05*	*0.46*
Sr	**0.75**	0.07	0.19	0.54	0.14	0.62	0.65	0.30	0.21	0.56	0.07	0.47	0.72	0.01	0.24	0.14	1	*0.73*	*0.36*
V	**0.88**	0.02	-0.01	0.39	0.01	0.21	**0.87**	0.07	-0.04	0.65	-0.14	0.66	0.71	0.01	-0.1	0.01	0.72	1	*0.12*
Zn	0.07	0.47	0.68	**0.81**	0.40	0.33	0.07	**0.77**	**0.76**	0.41	0.74	-0.10	0.43	0	**0.77**	0.34	0.33	0.03	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.5 Falconbridge

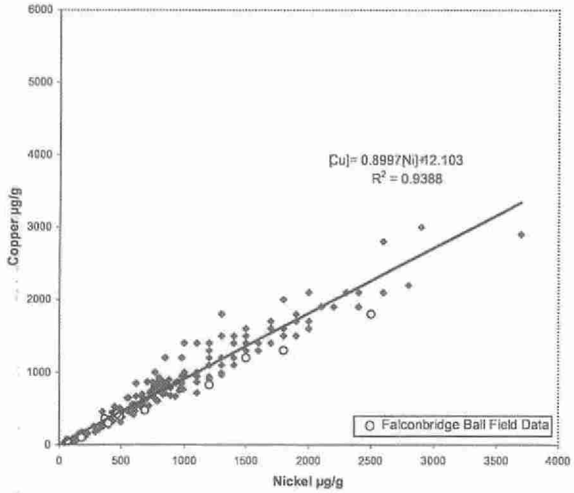


Fig. 10.4.5.1: Cu vs. Ni, 0-5cm, Falconbridge

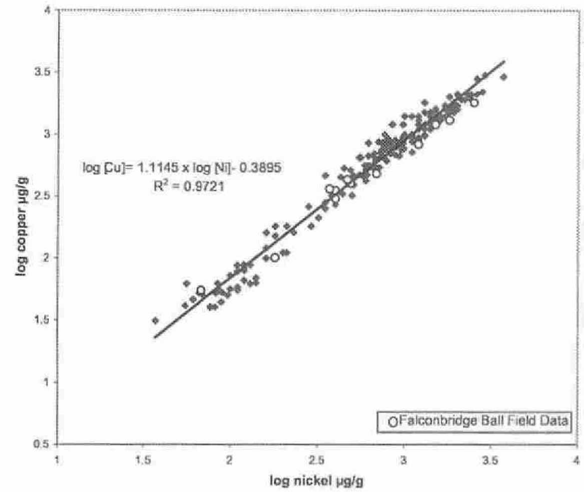


Fig. 10.4.5.1a: log Cu vs. log Ni, 0-5cm, Falconbridge

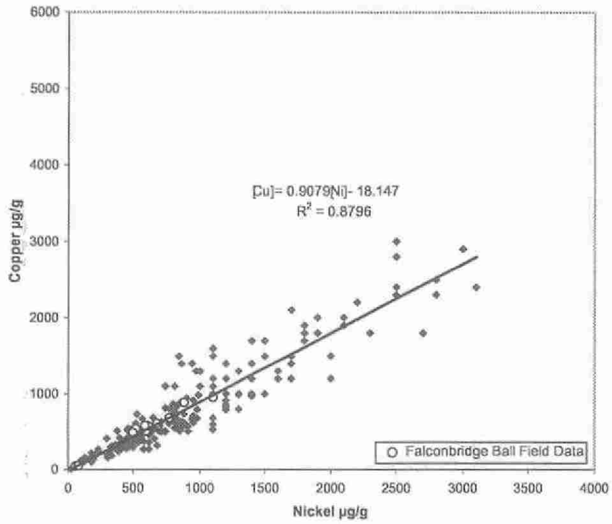


Fig. 10.4.5.2: Cu vs. Ni, 5-10cm, Falconbridge

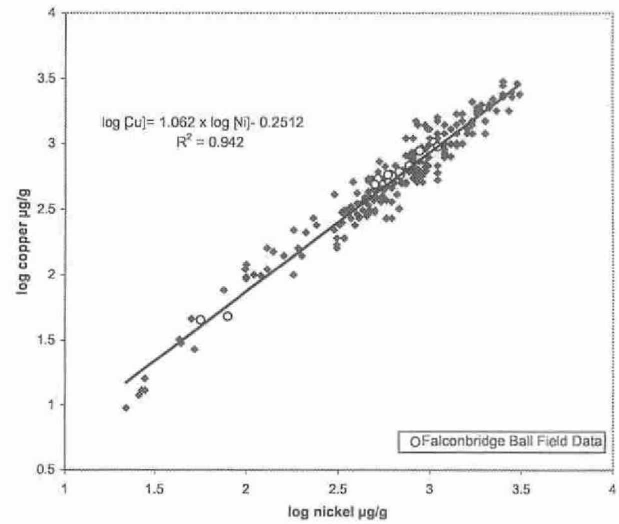


Fig. 10.4.5.2b: log Cu vs. log Ni, 5-10cm, Falconbridge

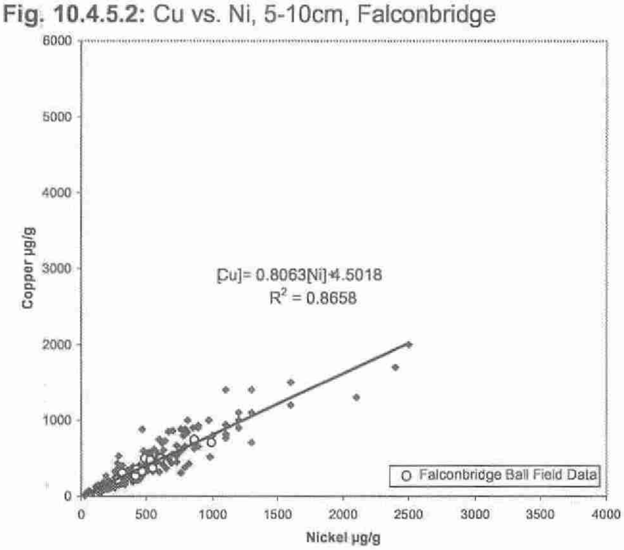


Fig. 10.4.5.3: Cu vs. Ni, 10-20cm, Falconbridge

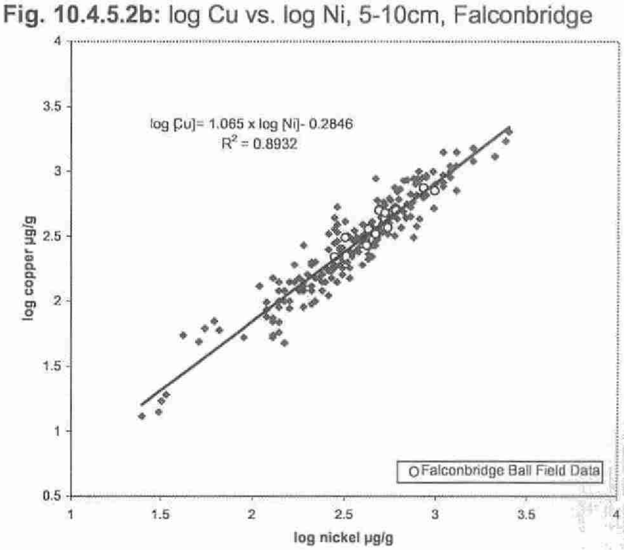


Fig. 10.4.5.3b: log Cu vs. log Ni, 10-20cm, Falconbridge

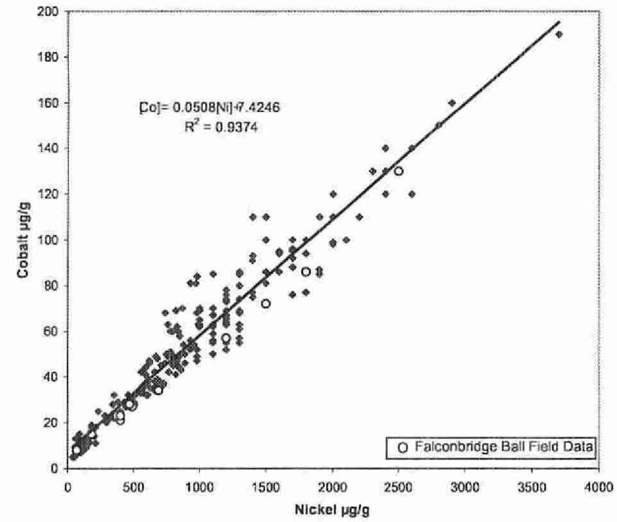


Fig. 10.4.5.4: Co vs. Ni, 0-5cm, Falconbridge

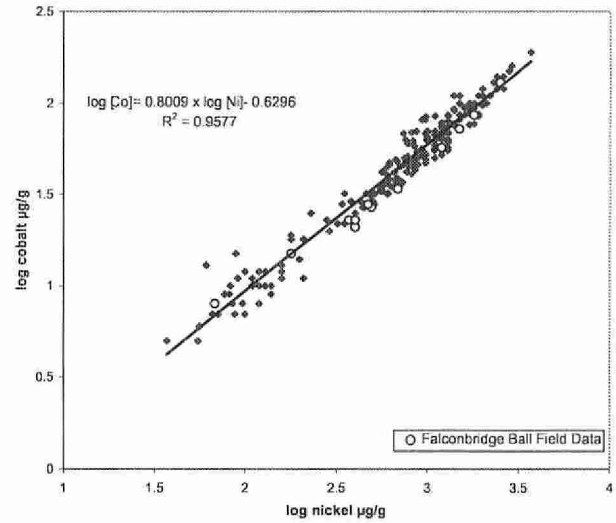


Fig. 10.4.5.4b: log Co vs. log Ni, 0-5cm, Falconbridge

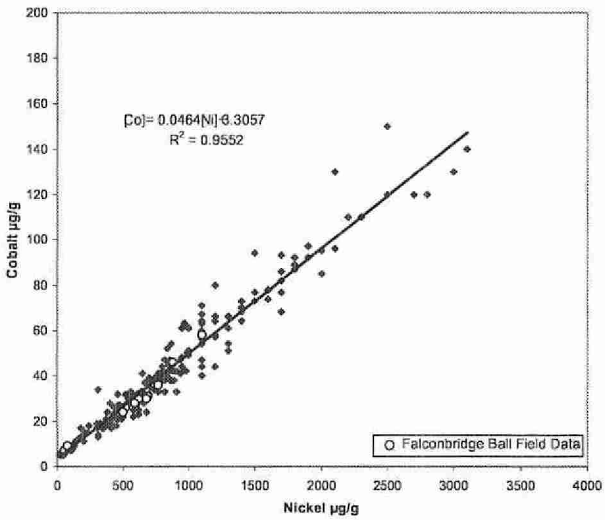


Fig. 10.4.5.5: Co vs. Ni, 5-10cm, Falconbridge

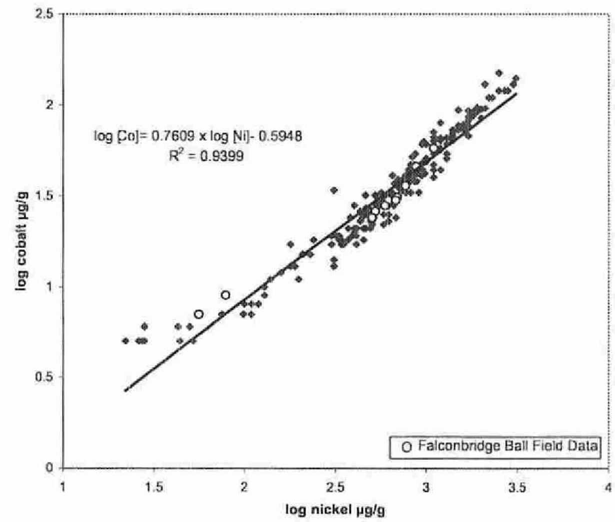


Fig. 10.4.5.5b: log Co vs. log Ni, 5-10cm, Falconbridge

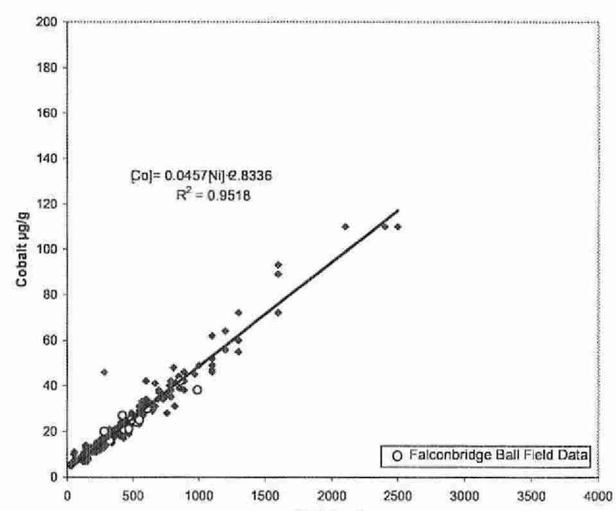


Fig. 10.4.5.6: Co vs. Ni, 10-20cm, Falconbridge

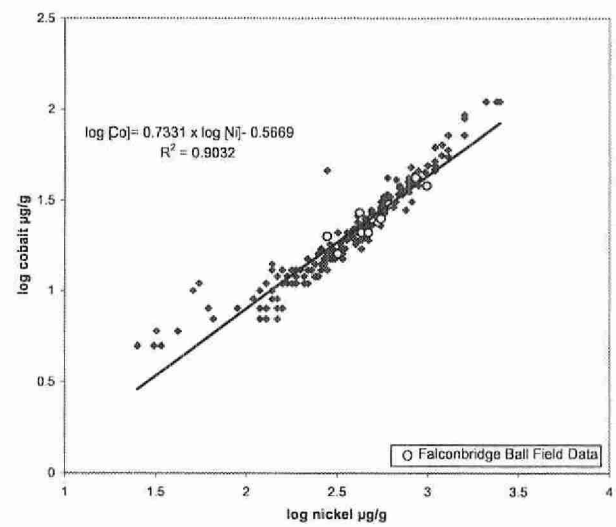


Fig. 10.4.5.6b: log Co vs. log Ni, 10-20cm, Falconbridge

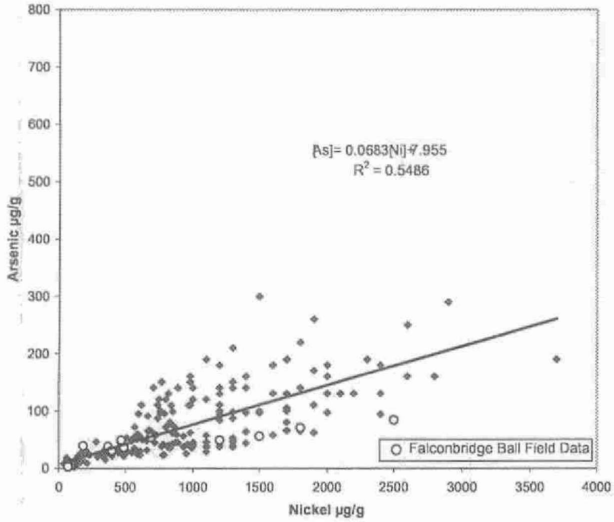


Fig. 10.4.5.7: As vs. Ni, 0-5cm, Falconbridge

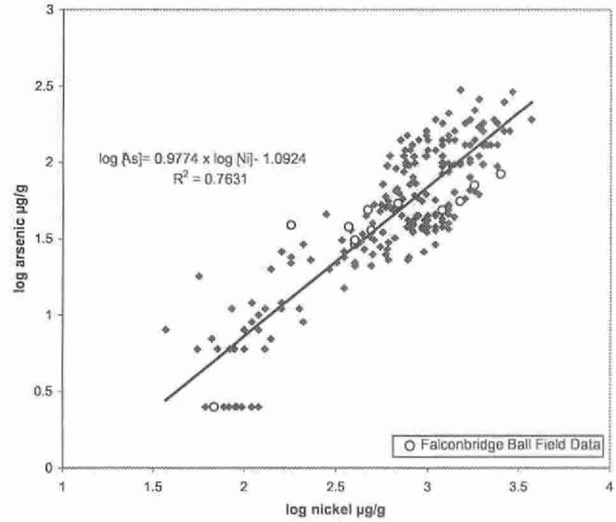


Fig. 10.4.5.7b: log As vs. log Ni, 0-5cm, Falconbridge

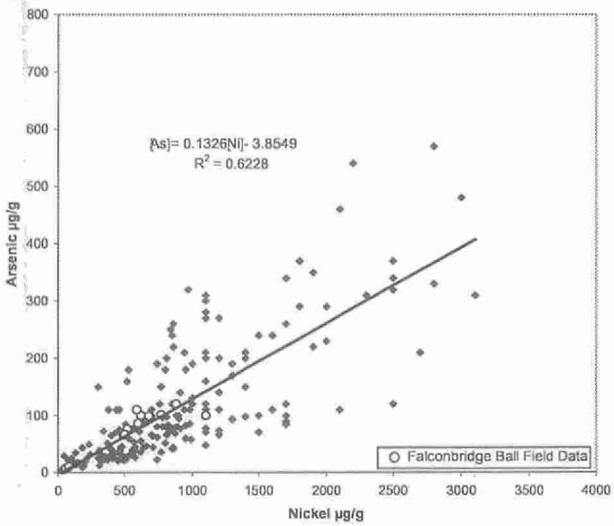


Fig. 10.4.5.8: As vs. Ni, 5-10cm, Falconbridge

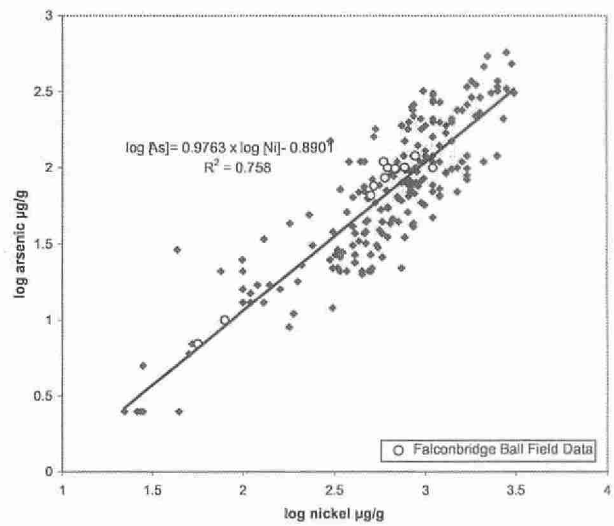


Fig. 10.4.5.8b: log As vs. log Ni, 5-10cm, Falconbridge

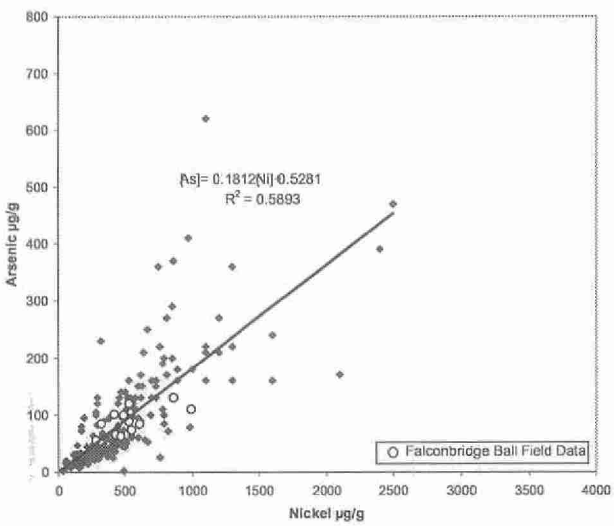


Fig. 10.4.5.9: As vs. Ni, 10-20cm, Falconbridge

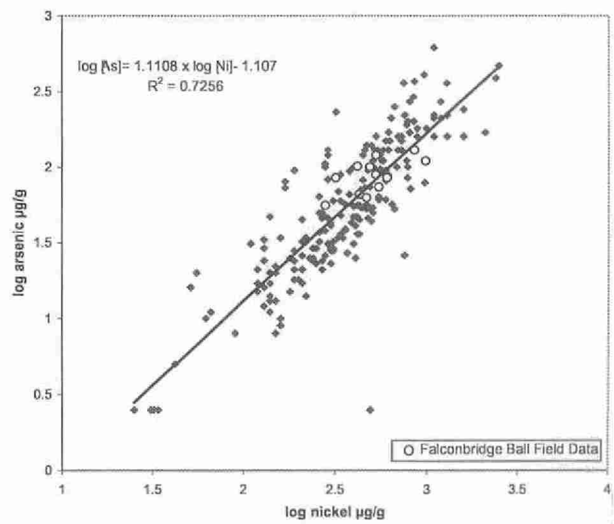


Fig. 10.4.5.9b: log As vs. log Ni, 10-20cm, Falconbridge

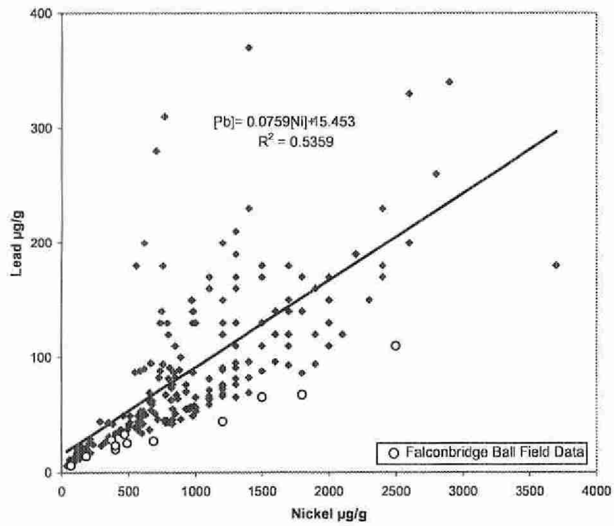


Fig. 10.4.5.10: Pb vs. Ni, 0-5cm, Falconbridge

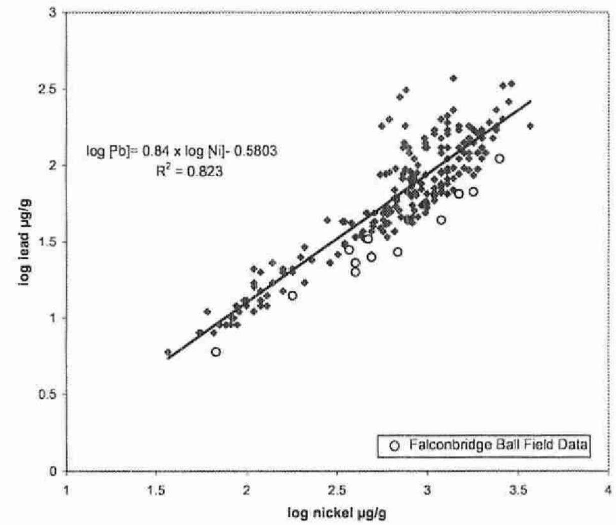


Fig. 10.4.5.10b: log Pb vs. log Ni, 0-5cm, Falconbridge

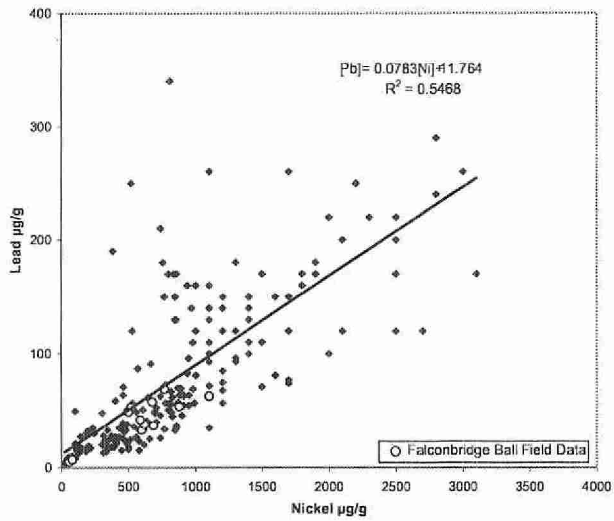


Fig. 10.4.5.11: Pb vs. Ni, 5-10cm, Falconbridge

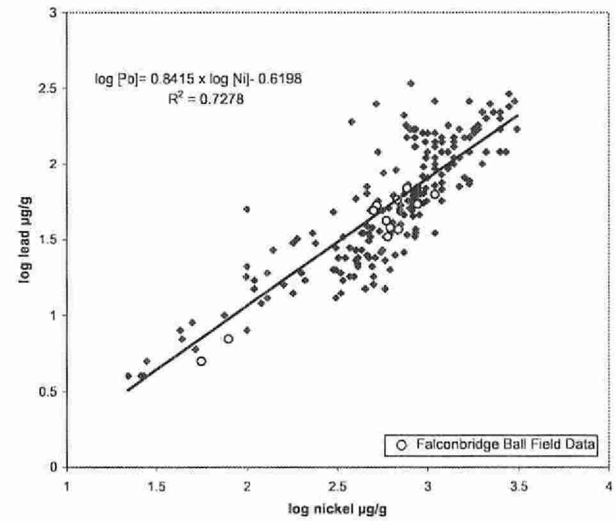


Fig. 10.4.5.11b: log Pb vs. log Ni, 5-10cm, Falconbridge

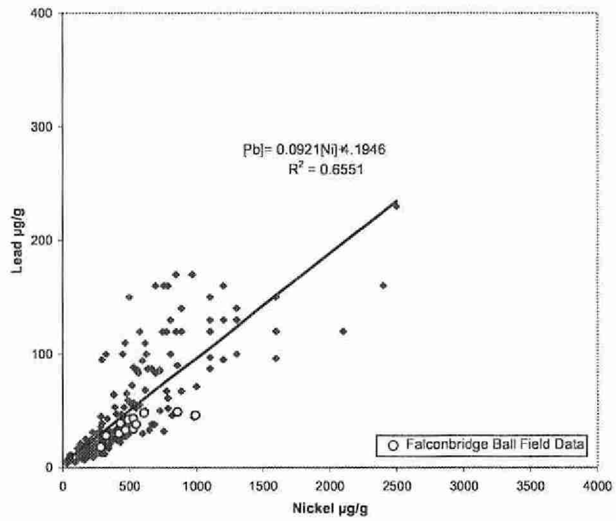


Fig. 10.4.5.12: Pb vs. Ni, 10-20cm, Falconbridge

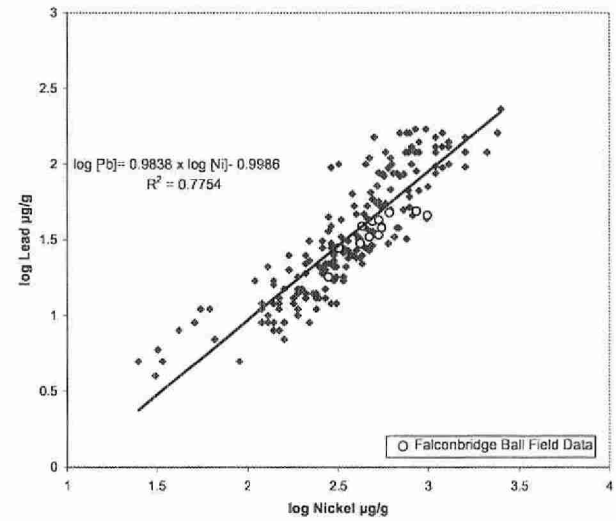


Fig. 10.4.5.12b: log Pb vs. log Ni, 10-20cm, Falconbridge

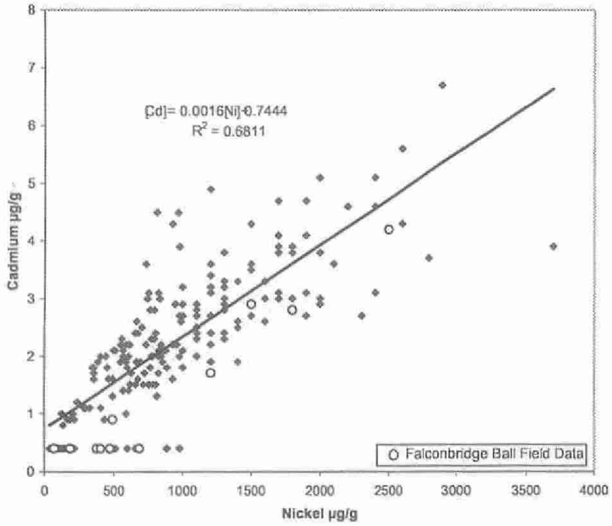


Fig. 10.4.5.13: Cd vs. Ni, 0-5cm, Falconbridge

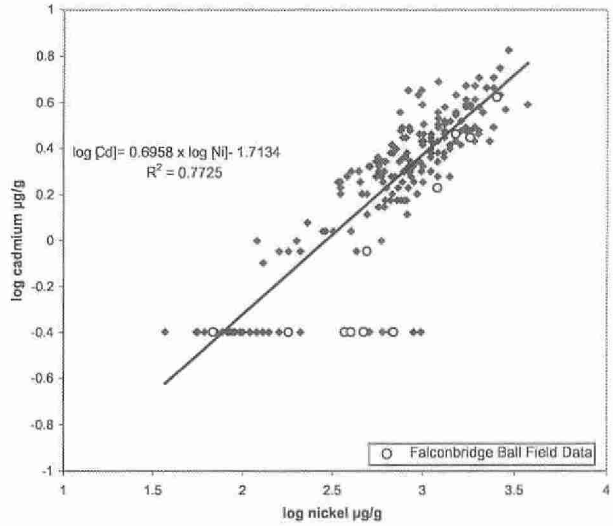


Fig. 10.4.5.13b: log Cd vs. log Ni, 0-5cm, Falconbridge

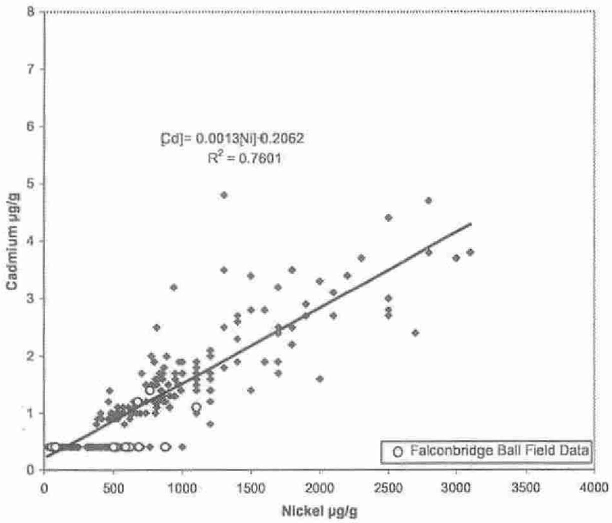


Fig. 10.4.5.14: Cd vs. Ni, 5-10cm, Falconbridge

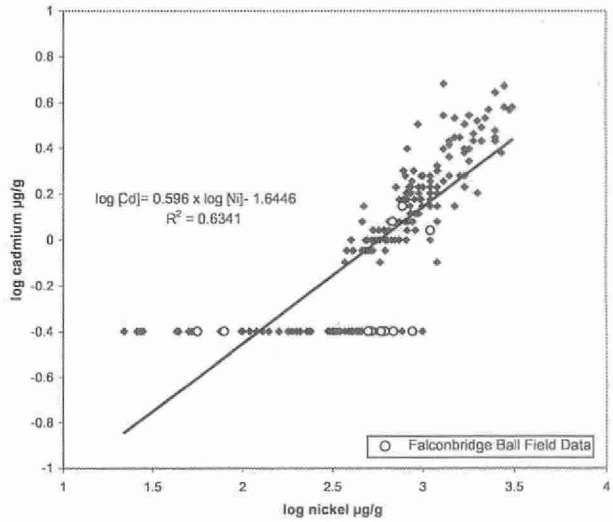


Fig. 10.4.5.14b: log Cd vs. log Ni, 5-10cm, Falconbridge

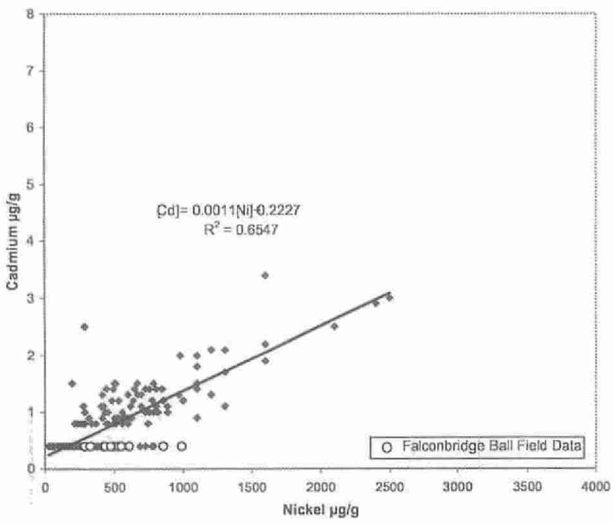


Fig. 10.4.5.15: Cd vs. Ni, 10-20cm, Falconbridge

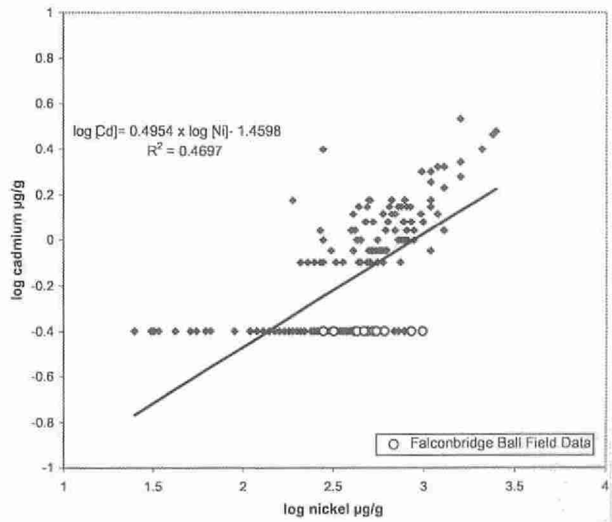


Fig. 10.4.5.15b: log Cd vs. log Ni, 10-20cm, Falconbridge

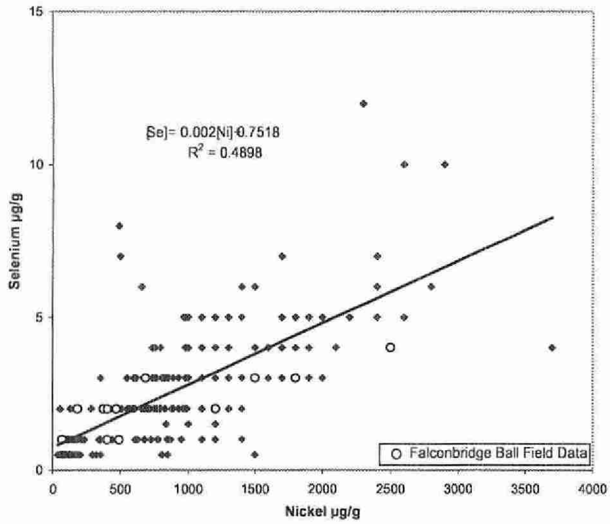


Fig. 10.4.5.16: Se vs. Ni, 0-5cm, Falconbridge

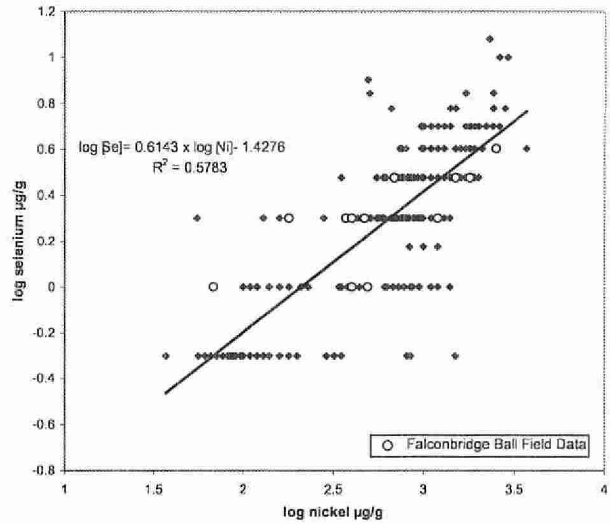


Fig. 10.4.5.16b: log Se vs. log Ni, 0-5cm, Falconbridge

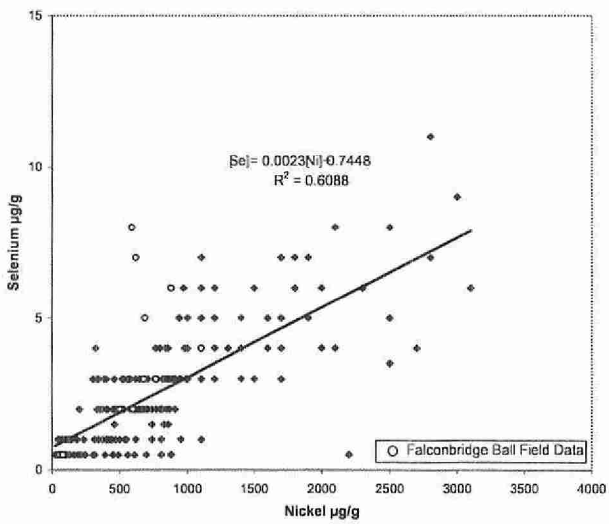


Fig. 10.4.5.17: Se vs. Ni, 5-10cm, Falconbridge

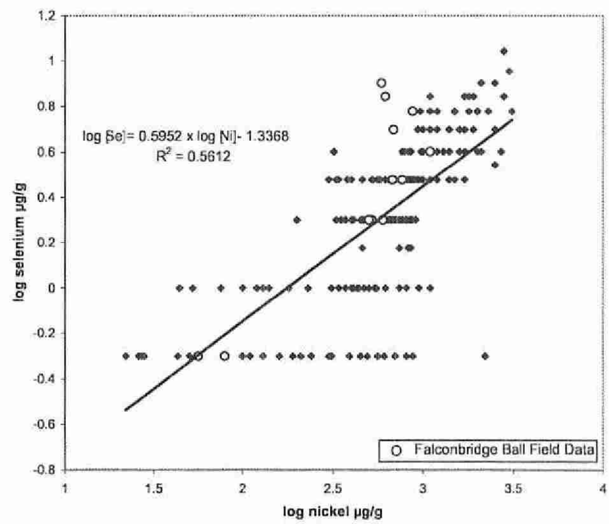


Fig. 10.4.5.17b: log Se vs. log Ni, 5-10cm, Falconbridge

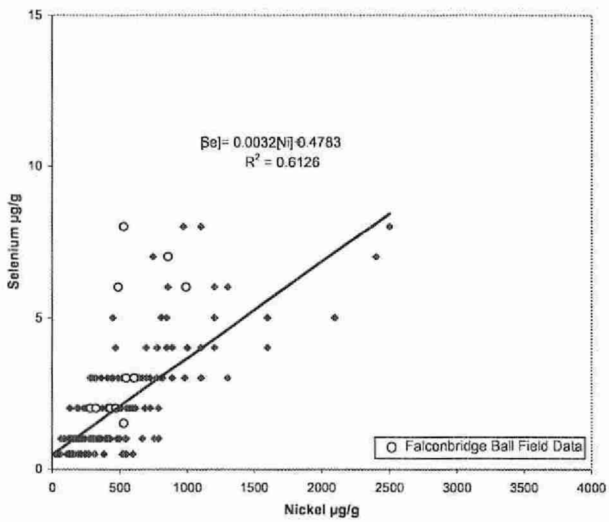


Fig. 10.4.5.18: Se vs. Ni, 10-20cm, Falconbridge

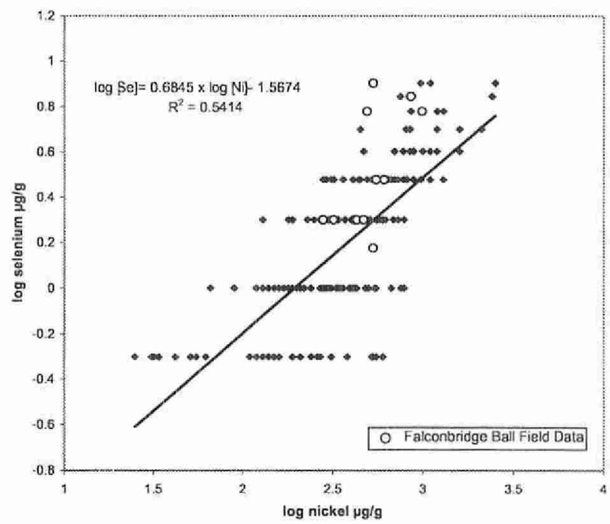


Fig. 10.4.5.18b: log Se vs. log Ni, 10-20cm, Falconbridge

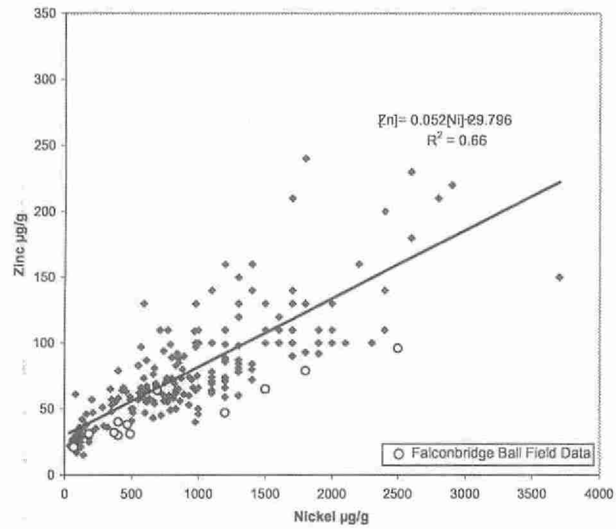


Fig. 10.4.5.19: Zn vs. Ni, 0-5cm, Falconbridge

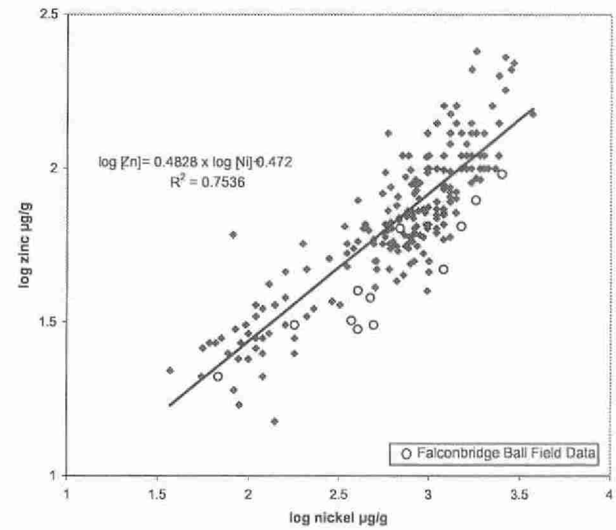


Fig. 10.4.5.19b: log Zn vs. log Ni, 0-5cm, Falconbridge

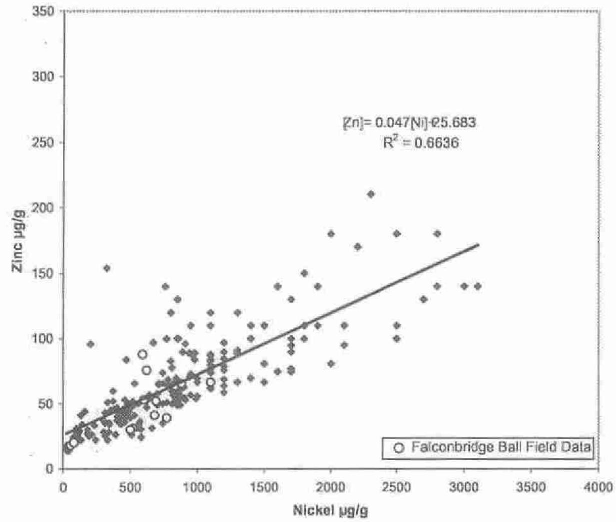


Fig. 10.4.5.20: Zn vs. Ni, 5-10cm, Falconbridge

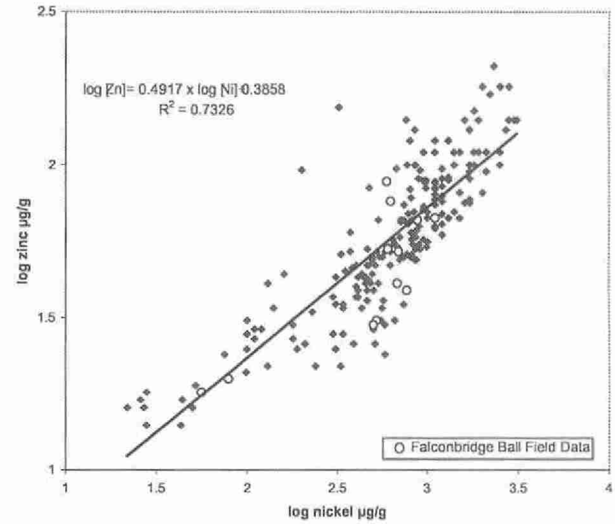


Fig. 10.4.5.20b: log Zn vs. log Ni, 5-10cm, Falconbridge

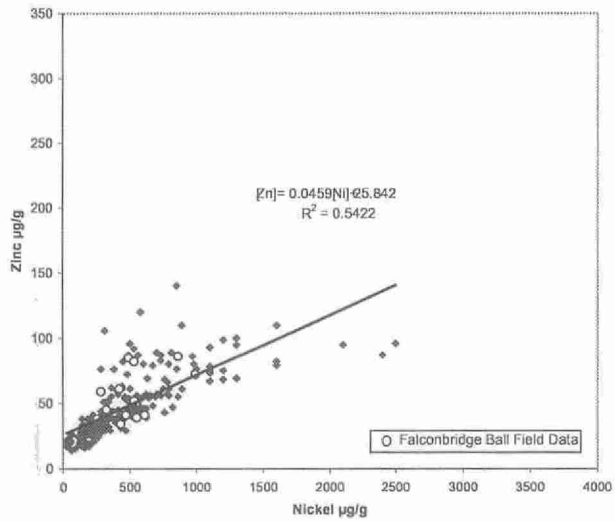


Fig. 10.4.5.21: Zn vs. Ni, 10-20cm, Falconbridge

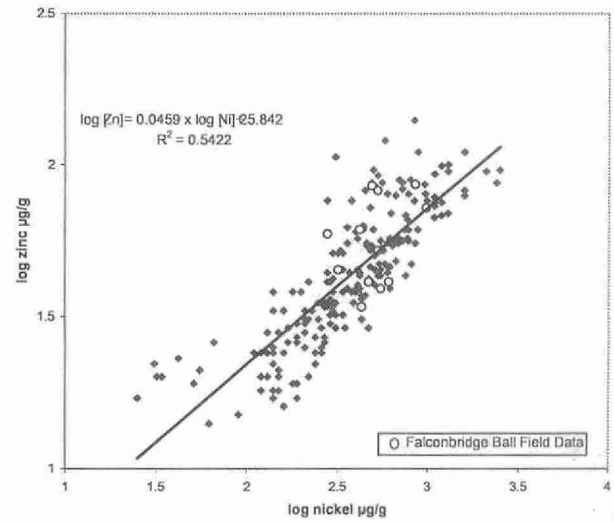


Fig. 10.4.5.21b: log Zn vs. log Ni, 10-20cm, Falconbridge

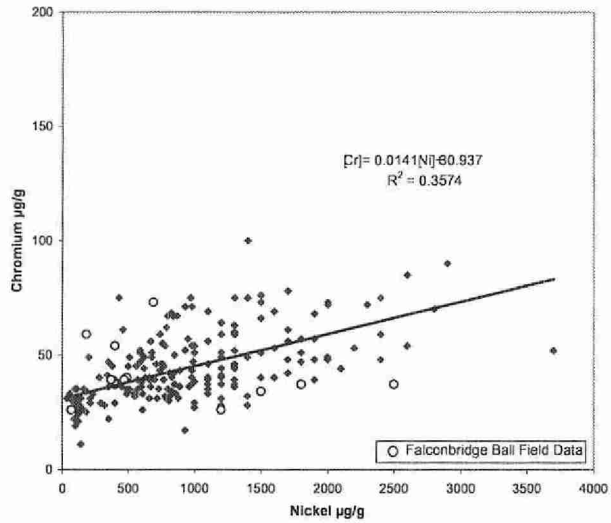


Fig. 10.4.5.22: Cr vs. Ni, 0-5cm, Falconbridge

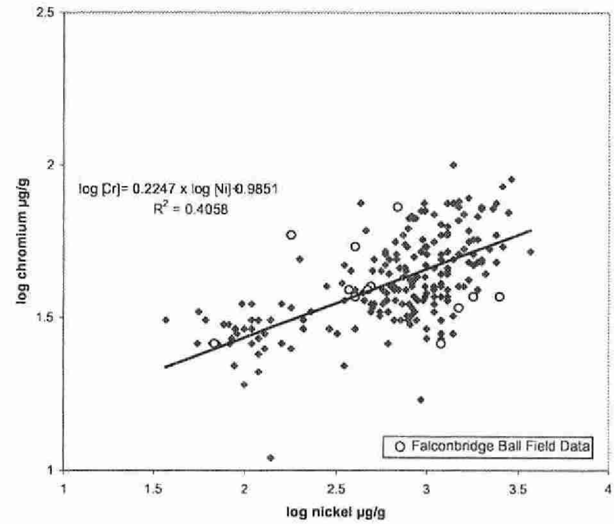


Fig. 10.4.5.22b: log Cr vs. log Ni, 0-5cm, Falconbridge

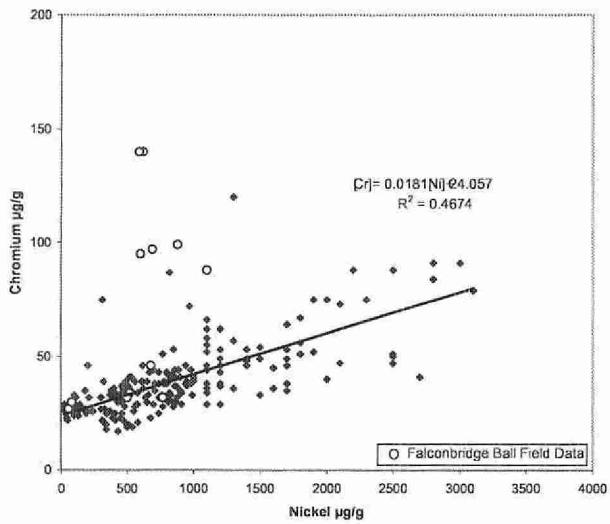


Fig. 10.4.5.23: Cr vs. Ni, 5-10cm, Falconbridge

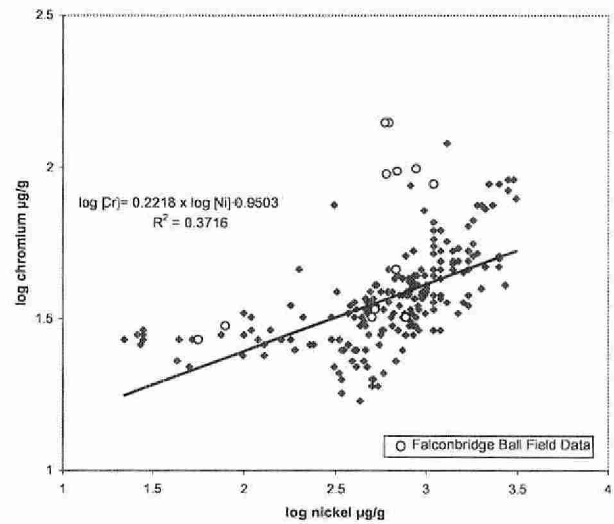


Fig. 10.4.5.23b: log Cr vs. log Ni, 5-10cm, Falconbridge

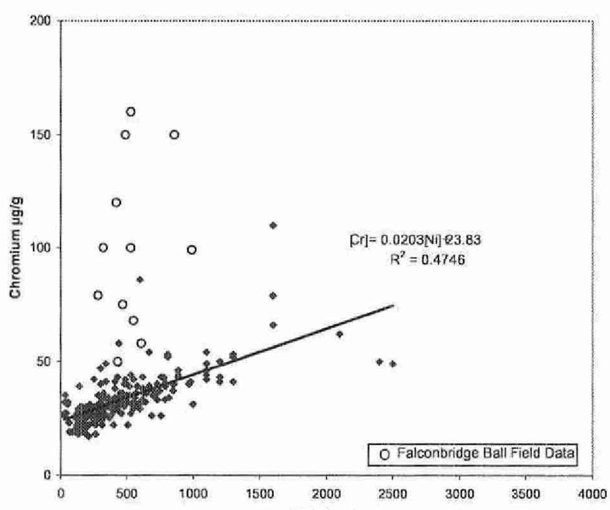


Fig. 10.4.5.24: Cr vs. Ni, 10-20cm, Falconbridge

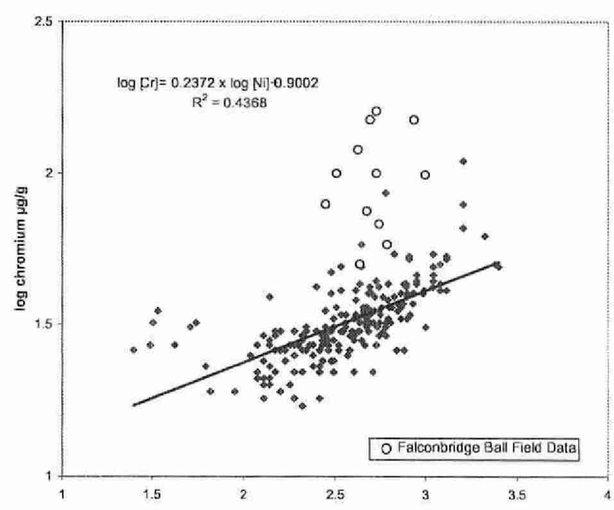


Fig. 10.4.5.24b: log Cr vs. log Ni, 10-20cm, Falconbridge

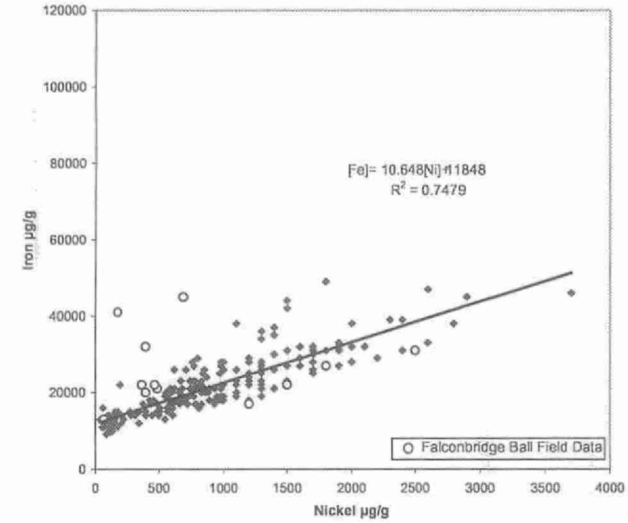


Fig. 10.4.5.25: Fe vs. Ni, 0-5cm, Falconbridge

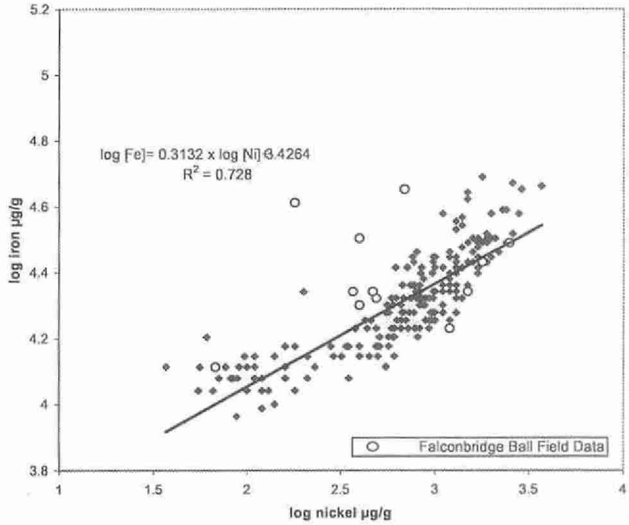


Fig. 10.4.5.25b: log Fe vs. log Ni, 0-5 cm, Falconbridge

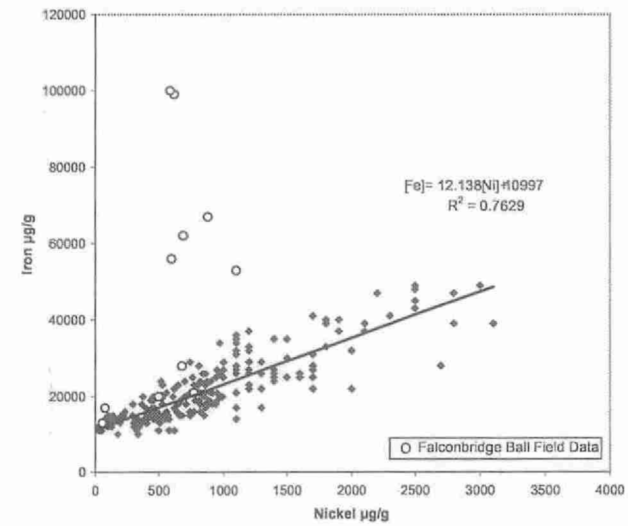


Fig. 10.4.5.26: Fe vs. Ni, 5-10cm, Falconbridge

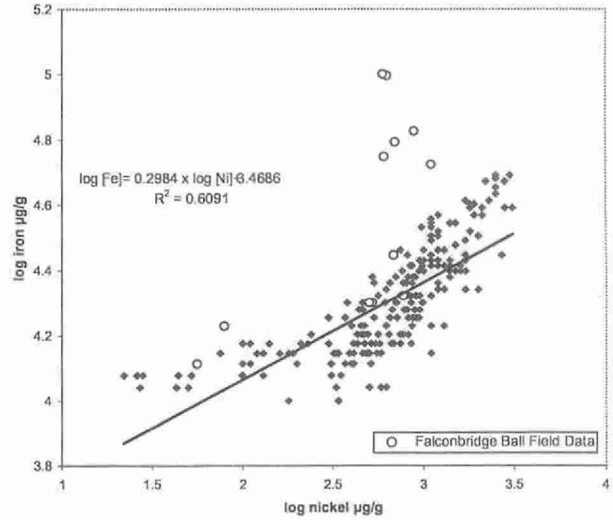


Fig. 10.4.5.26b: log Fe vs. log Ni, 5-10cm, Falconbridge

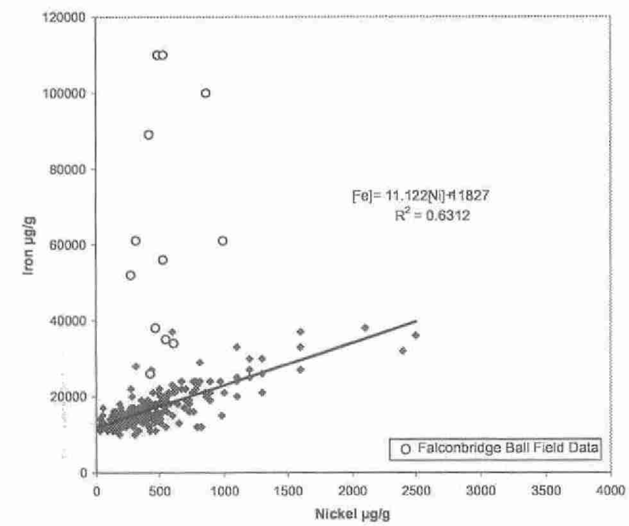


Fig. 10.4.5.27: Fe vs. Ni, 10-20cm, Falconbridge

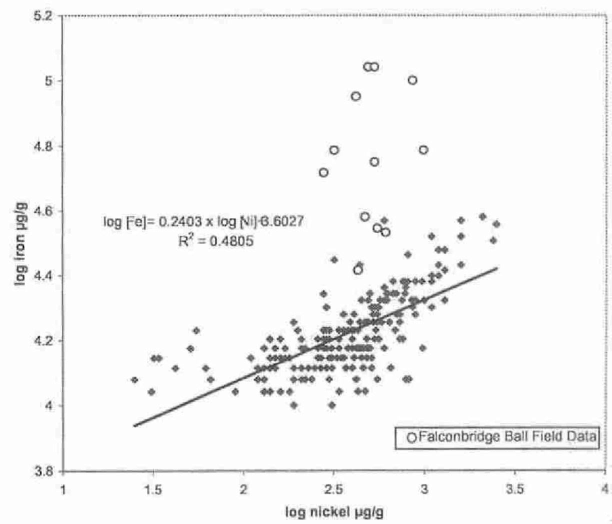


Fig. 10.4.5.27b: log Fe vs. log Ni, 10-20cm, Falconbridge

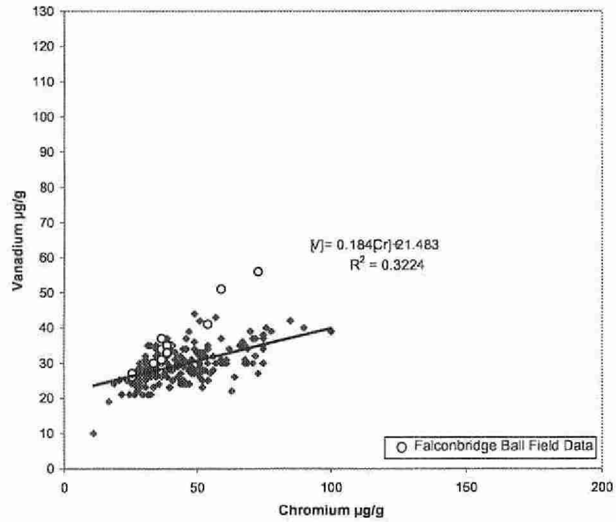


Fig. 10.4.5.28: V vs. Cr, 0-5cm, Falconbridge

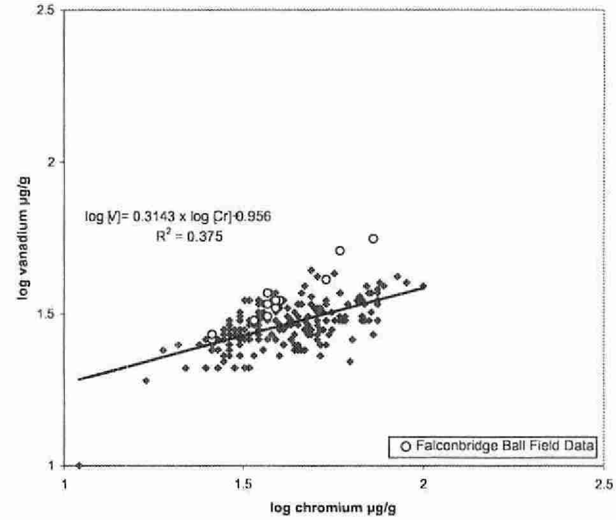


Fig. 10.4.5.28b: log V vs. log Cr, 0-5cm, Falconbridge

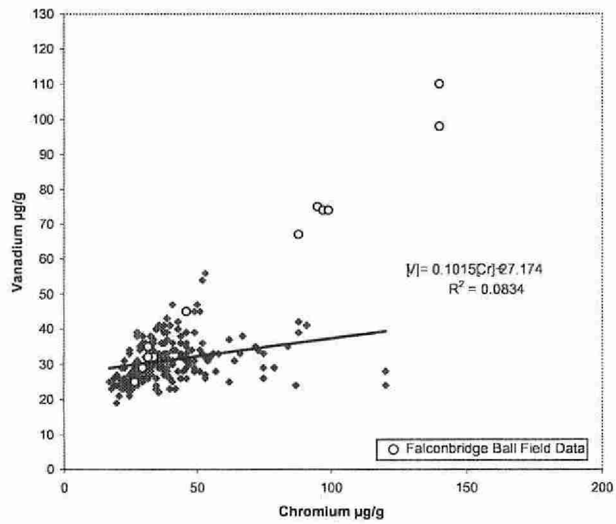


Fig. 10.4.5.29: V vs. Cr, 5-10cm, Falconbridge

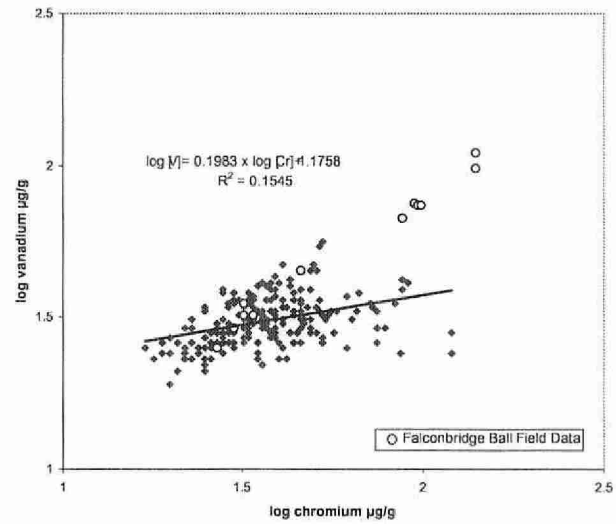


Fig. 10.4.5.29b: log V vs. log Cr, 5-10cm, Falconbridge

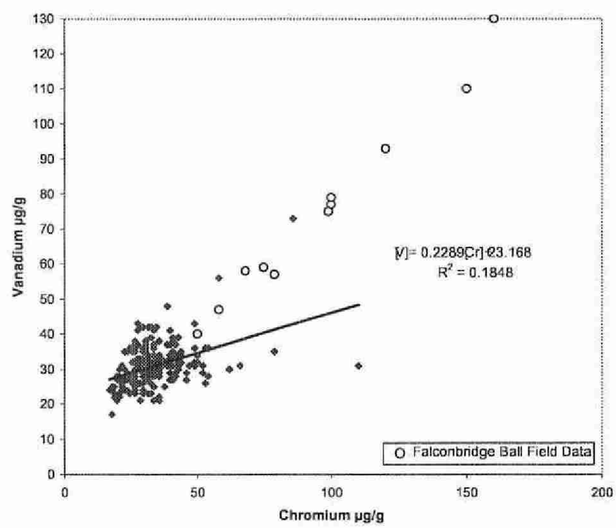


Fig. 10.4.5.30: V vs. Cr, 10-20cm, Falconbridge

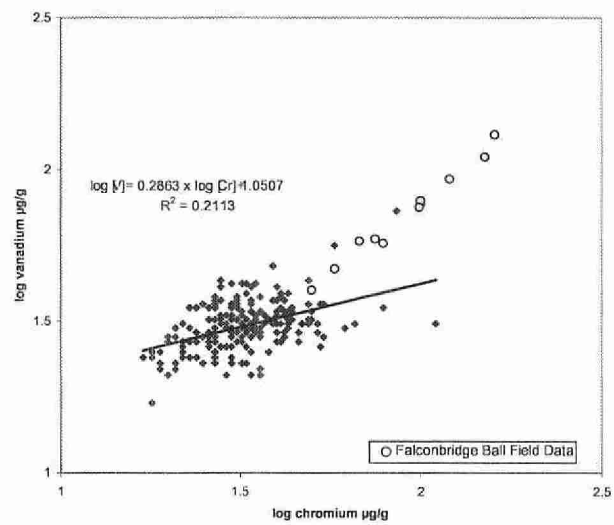


Fig. 10.4.5.30b: log V vs. log Cr, 10-20cm, Falconbridge

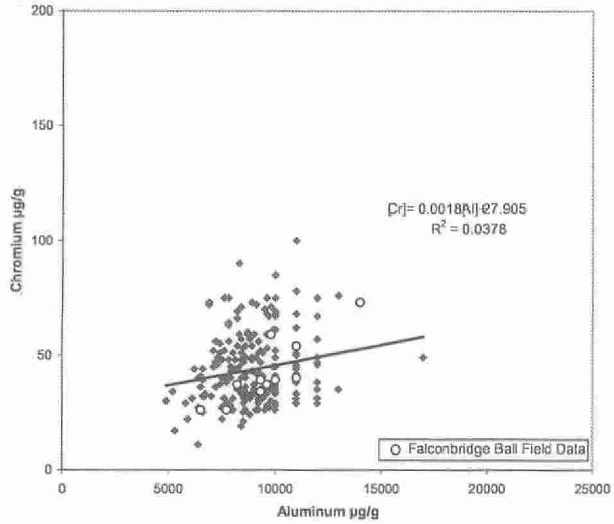


Fig. 10.4.5.31: Cr vs. Al, 0-5cm, Falconbridge

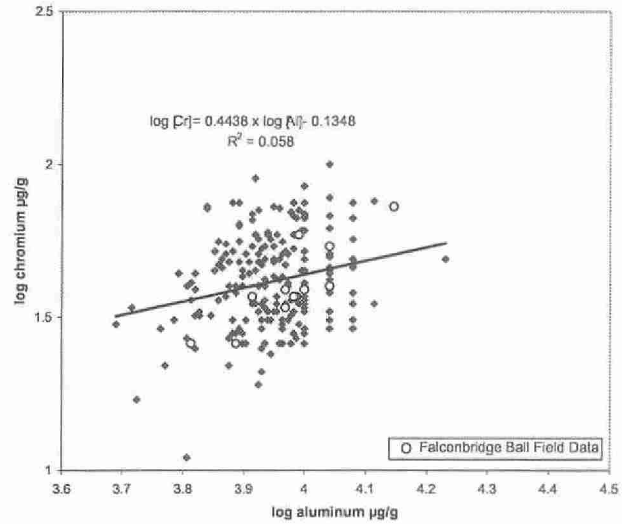


Fig. 10.4.5.31b:log Cr vs. log Al, 0-5cm, Falconbridge

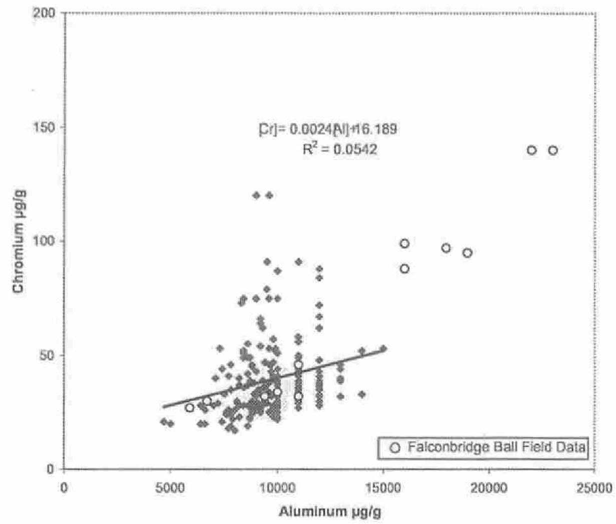


Fig. 10.4.5.32: Cr vs. Al, 5-10cm, Falconbridge

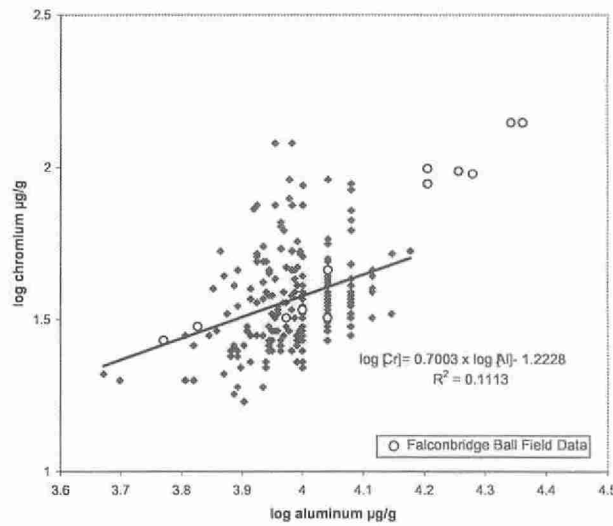


Fig. 10.4.5.32b: log Cr vs. log Al, 5-10cm, Falconbridge

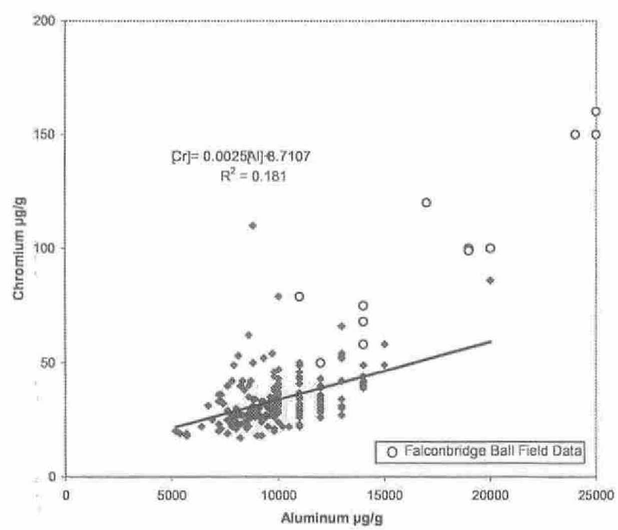


Fig. 10.4.5.33: Cr vs. Al, 10-20cm, Falconbridge

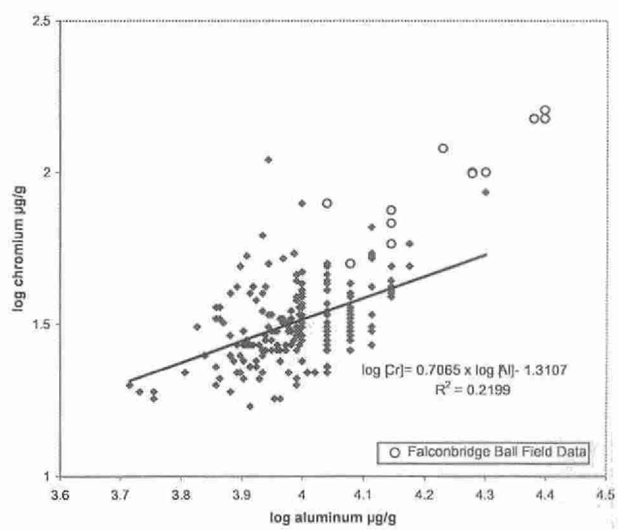


Fig. 10.4.5.33b: log Cr vs. log Al, 10-20cm, Falconbridge

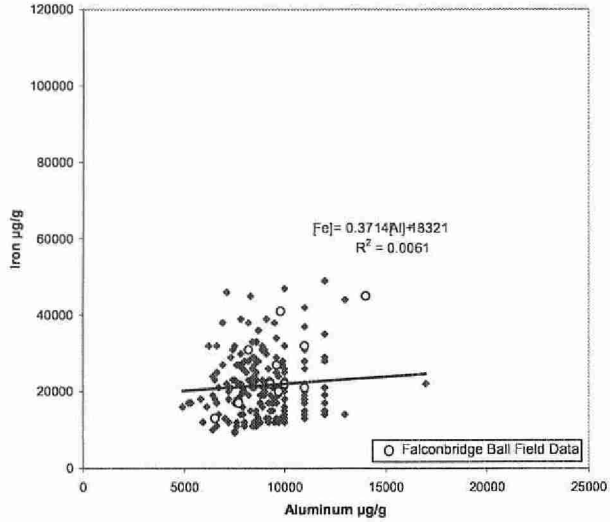


Fig. 10.4.5.34: Fe vs. Al, 0-5cm, Falconbridge

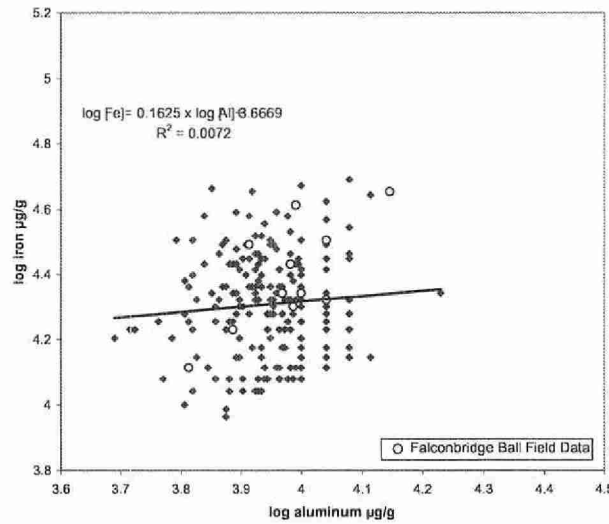


Fig. 10.4.5.34b: log Fe vs. log Al, 0-5cm, Falconbridge

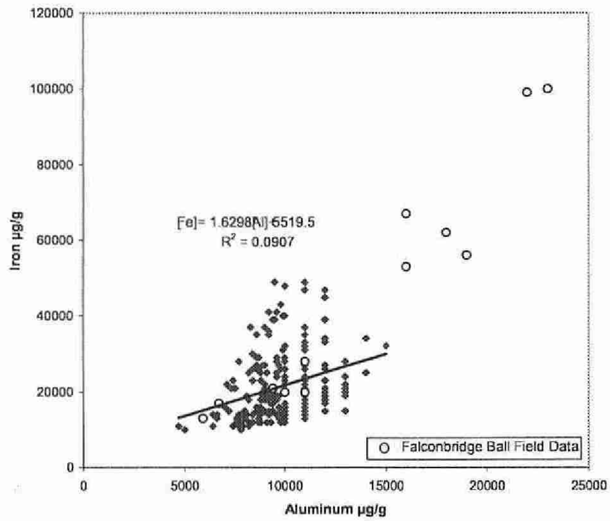


Fig. 10.4.5.35: Fe vs. Al, 5-10cm, Falconbridge

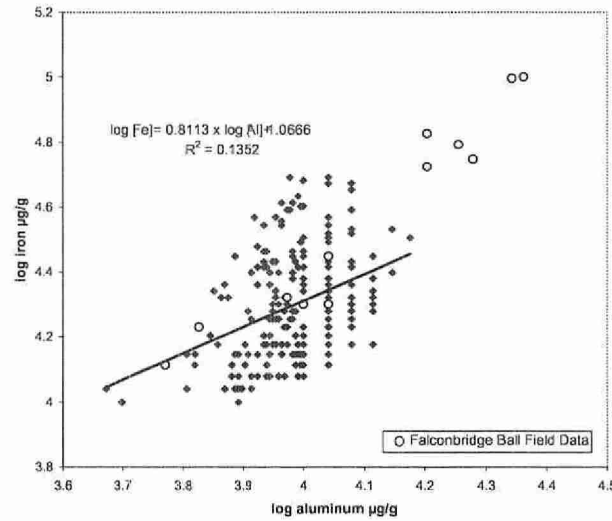


Fig. 10.4.5.35b: log Fe vs. log Al, 5-10cm, Falconbridge

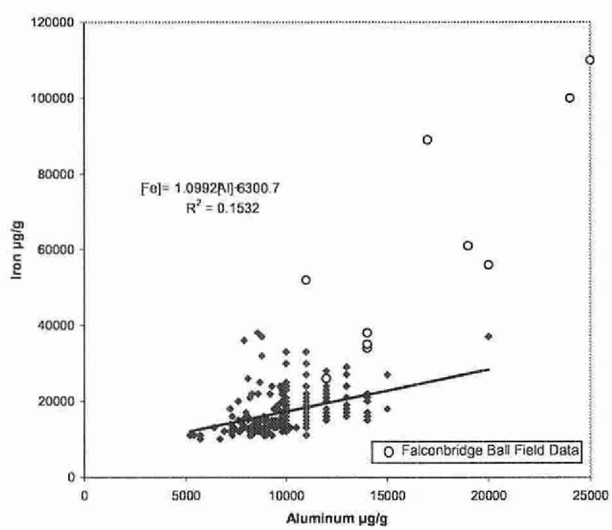


Fig. 10.4.5.36: Fe vs. Al, 10-20cm, Falconbridge

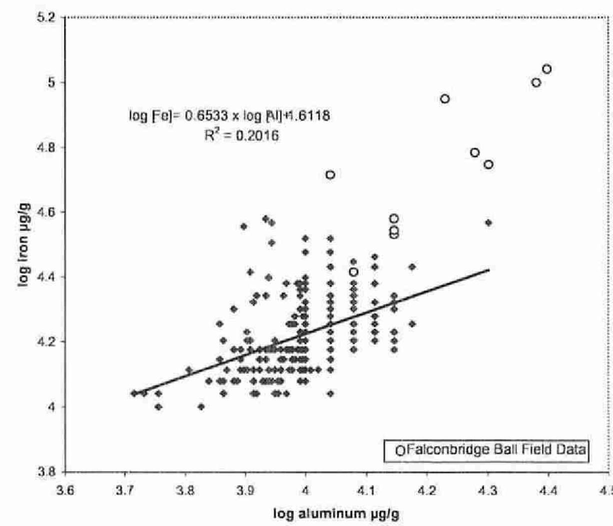


Fig. 10.4.5.36b: log Fe vs. log Al, 10-20cm, Falconbridge

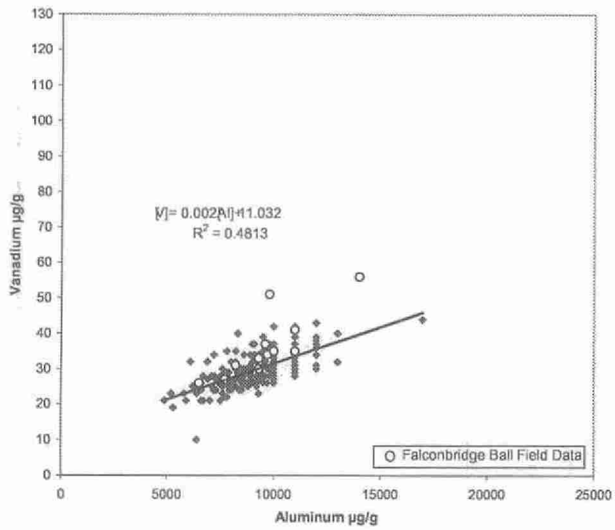


Fig. 10.4.5.37: V vs. Al, 0-5cm, Falconbridge

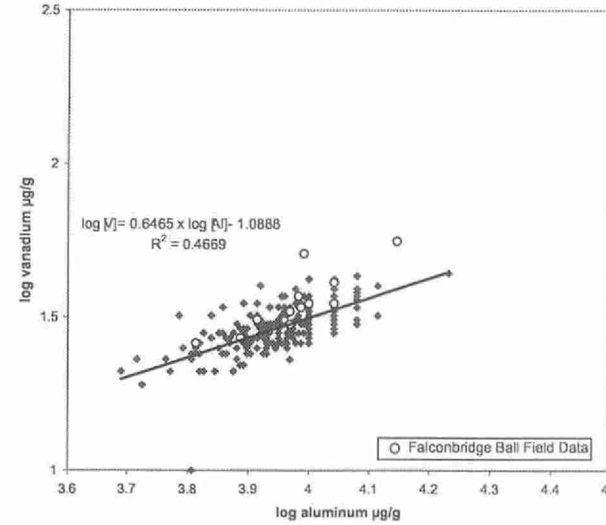


Fig. 10.4.5.37b: log V vs. log Al, 0-5cm, Falconbridge

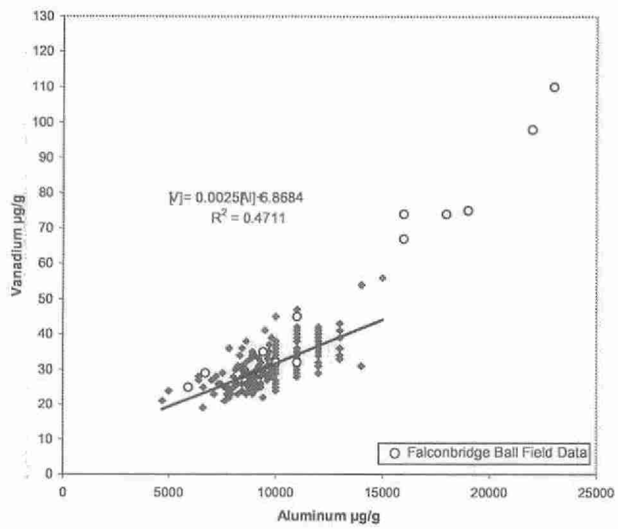


Fig. 10.4.5.38: V vs. Al, 5-10cm, Falconbridge

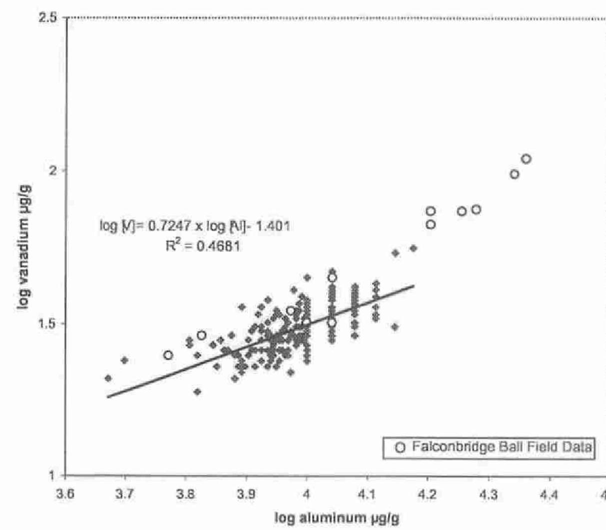


Fig. 10.4.5.38b: log V vs. log Al, 5-10cm, Falconbridge

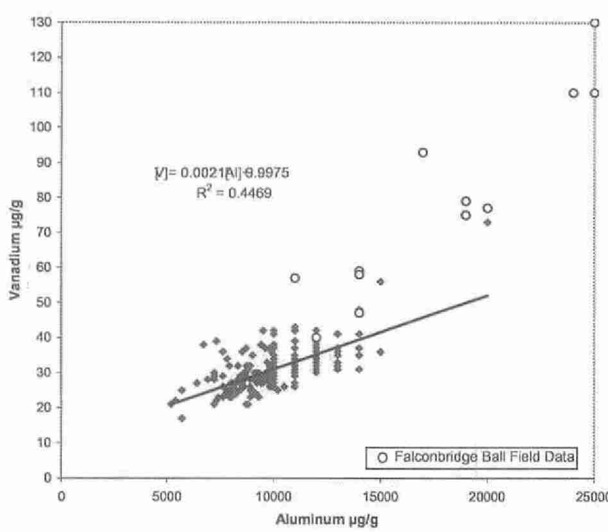


Fig. 10.4.5.39: V vs. Al, 10-20cm, Falconbridge

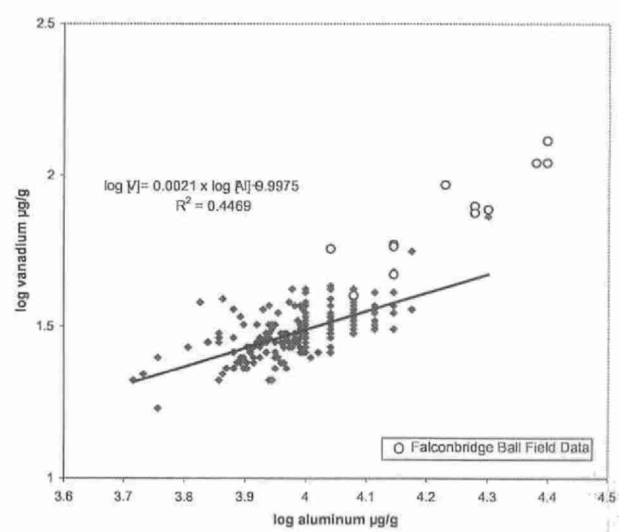


Fig. 10.4.5.39b: log V vs. log Al, 10-20cm, Falconbridge

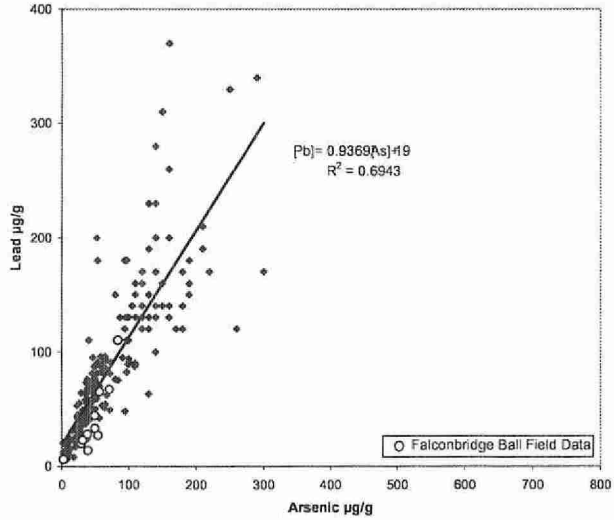


Fig. 10.4.5.40: Pb vs. As, 0-5cm, Falconbridge

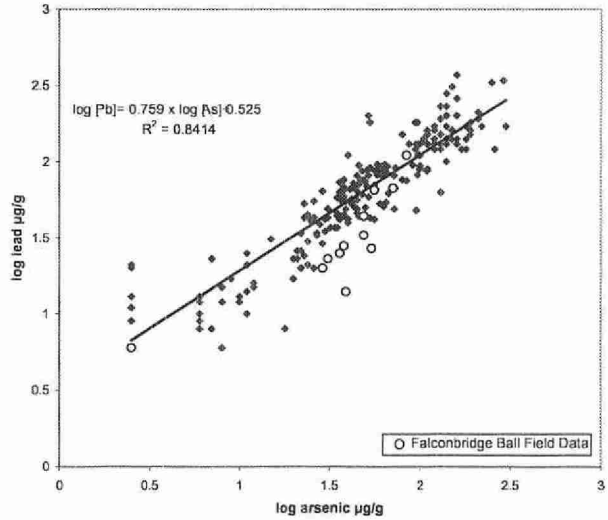


Fig. 10.4.5.40b: log Pb vs. log As, 0-5cm, Falconbridge

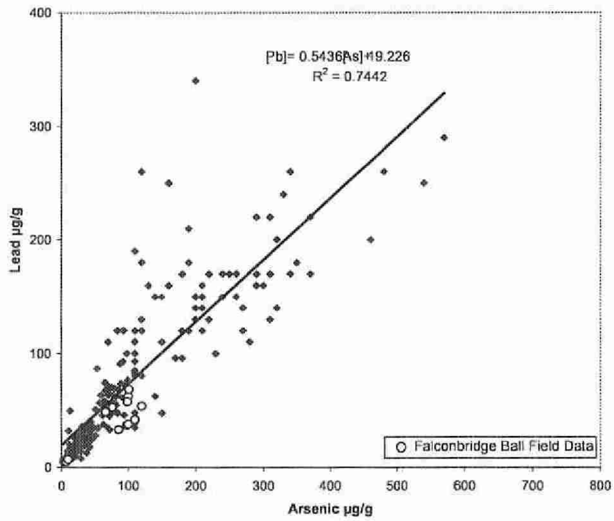


Fig. 10.4.5.41: Pb vs. As, 5-10cm, Falconbridge

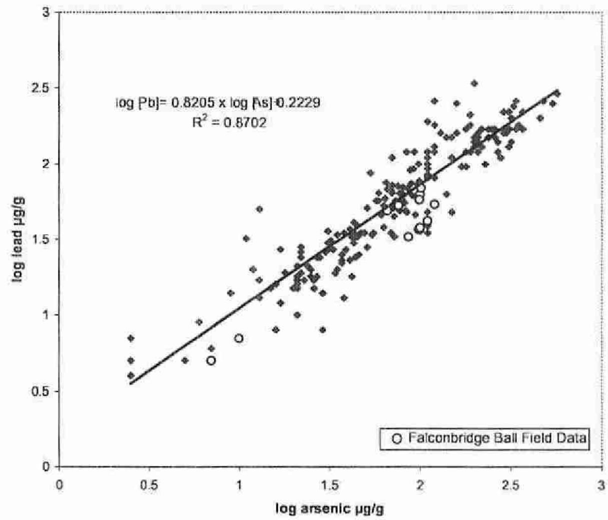


Fig. 10.4.5.41b: log Pb vs. log As, 5-10cm, Falconbridge

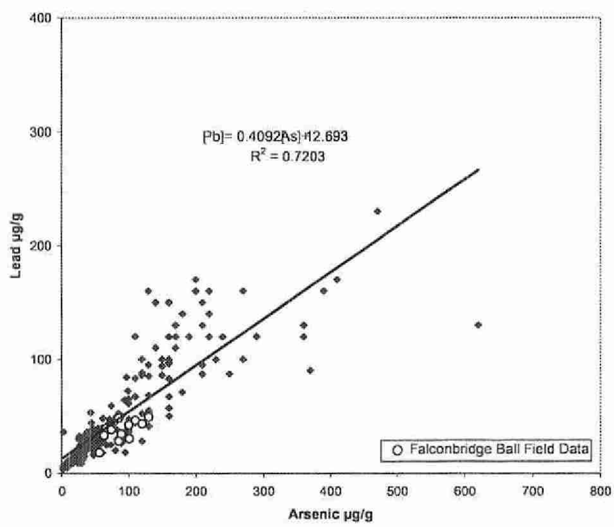


Fig. 10.4.5.42: Pb vs. As, 10-20cm, Falconbridge

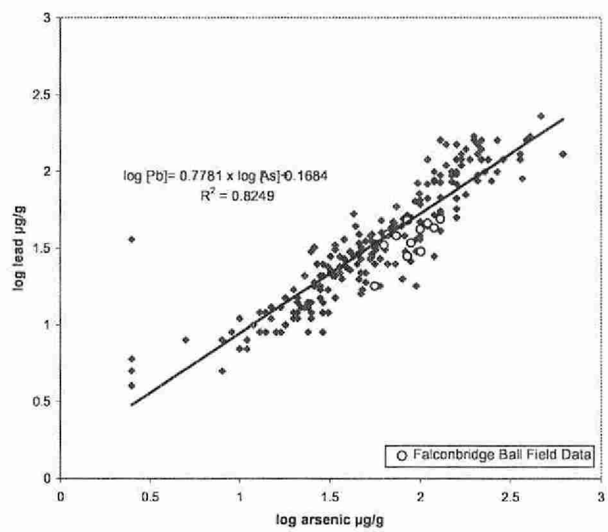


Fig. 10.4.5.42b: log Pb vs. log As, 10-20cm, Falconbridge

Table 10.4.5.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0*	*-0.01*	*0.31*	*-0.22*	*0.14*	*0.17*	*-0.21*	*-0.20*	*0.03*	*-0.08*	*0.20*	*0.47*	*-0.09*	*-0.22*	*-0.05*	***0.76***	*0.69*	*-0.08*
Sb	-0.01	1	*0.28*	*0.22*	*0.22*	*0.08*	*0.20*	*0.22*	*0.25*	*0.25*	*0.34*	*0.14*	*0.02*	*0.12*	*0.23*	*0.25*	*0.03*	*0.10*	*0.25*
As	0.01	0.30	1	*0.66*	***0.75***	*0.34*	*0.70*	***0.81***	***0.86***	***0.90***	***0.92***	*0.26*	*0.07*	*0.45*	***0.80***	***0.76***	*0.00*	*0.34*	***0.82***
Ba	0.31	0.07	0.6	1	*0.66*	*0.69*	*0.70*	*0.66*	*0.67*	*0.73*	*0.71*	*0.49*	*0.49*	*0.35*	*0.67*	*0.61*	*0.45*	*0.58*	***0.78***
Cd	-0.19	0.15	0.67	0.67	1	*0.54*	*0.74*	***0.90***	***0.86***	***0.83***	***0.85***	*0.40*	*0.08*	*0.61*	***0.86***	*0.72*	*0.00*	*0.19*	***0.86***
Ca	0.07	-0.05	0.18	0.55	0.48	1	*0.50*	*0.59*	*0.53*	*0.49*	*0.41*	*0.68*	*0.49*	*0.25*	*0.62*	*0.44*	*0.45*	*0.35*	*0.56*
Cr	0.19	0.09	0.67	0.67	0.69	0.32	1	*0.73*	*0.66*	***0.79***	***0.75***	*0.52*	*0.20*	*0.69*	*0.64*	*0.65*	*0.32*	*0.54*	*0.72*
Co	-0.18	0.10	**0.75**	0.65	**0.87**	0.47	0.7	1	***0.96***	***0.92***	***0.87***	*0.43*	*0.14*	*0.57*	***0.97***	*0.74*	*0.03*	*0.24*	***0.85***
Cu	-0.17	0.16	**0.82**	0.67	**0.84**	0.43	0.64	**0.96**	1	***0.93***	***0.89***	*0.33*	*0.11*	*0.47*	***0.97***	*0.74*	*-0.02*	*0.22*	***0.85***
Fe	0.08	0.17	**0.87**	0.70	**0.77**	0.35	**0.75**	**0.90**	**0.92**	1	***0.91***	*0.45*	*0.22*	*0.53*	***0.89***	*0.74*	*0.14*	*0.45*	***0.84***
Pb	0.00	0.34	**0.83**	0.68	**0.75**	0.29	0.68	**0.77**	**0.80**	**0.82**	1	*0.33*	*0.10*	*0.54*	***0.84***	***0.77***	*0.02*	*0.28*	***0.88***
Mg	0.21	0.03	0.22	0.45	0.37	0.46	0.53	0.40	0.31	0.43	0.32	1	*0.43*	*0.36*	*0.36*	*0.28*	*0.44*	*0.44*	*0.38*
Mn	0.46	-0.13	-0.02	0.51	0.08	0.26	0.21	0.11	0.08	0.18	0.07	0.36	1	*0.05*	*0.13*	*0.07*	*0.56*	*0.65*	*0.16*
Mo	-0.06	0.01	0.43	0.35	0.60	0.13	0.74	0.58	0.46	0.54	0.53	0.41	0.02	1	*0.43*	*0.46*	*0.06*	*0.29*	*0.50*
Ni	-0.19	0.13	0.74	0.65	**0.83**	0.49	0.60	**0.97**	**0.97**	**0.87**	0.73	0.32	0.09	0.4	1	*0.73*	*0.00*	*0.18*	***0.84***
Se	-0.02	0.18	0.72	0.57	0.66	0.30	0.65	0.72	0.73	0.72	0.70	0.26	0.06	0.49	0.70	1	*0.05*	*0.28*	*0.69*
Sr	0.73	-0.08	0.01	0.49	0.06	0.46	0.33	0.07	0.04	0.16	0.07	0.39	0.57	0.05	0.06	0.10	1	*0.64*	*0.07*
V	0.69	-0.05	0.35	0.61	0.24	0.22	0.57	0.30	0.29	0.51	0.35	0.44	0.67	0.33	0.24	0.35	0.64	1	*0.31*
Zn	-0.05	0.30	**0.76**	0.74	**0.79**	0.42	0.63	**0.80**	**0.82**	**0.77**	**0.83**	0.32	0.13	0.39	**0.81**	0.66	0.13	0.34	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.5.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	0.15	0.16	0.49	0.13	0.33	0.31	0.14	0.13	0.34	0.16	0.47	0.54	0.11	0.13	0.06	0.74	0.69	0.20
Sb	0.03	1	0.34	0.29	0.28	0.13	0.26	0.25	0.30	0.33	0.41	0.24	0.04	0.09	0.23	0.22	0.09	0.17	0.33
As	0.12	0.17	1	0.71	**0.78**	0.27	0.73	**0.85**	**0.90**	**0.89**	**0.93**	0.22	0	0.32	**0.84**	**0.79**	0.06	0.33	**0.82**
Ba	0.54	0.08	0.60	1	0.71	0.61	0.74	0.73	0.74	**0.78**	**0.74**	0.55	0.42	0.33	0.74	0.63	0.46	0.56	**0.78**
Cd	0.14	0.08	0.74	0.68	1	0.50	**0.80**	**0.90**	**0.88**	**0.82**	**0.84**	0.37	0.1	0.39	**0.90**	**0.76**	0.15	0.32	**0.84**
Ca	0.29	-0.04	0.11	0.51	0.46	1	0.42	0.52	0.44	0.41	0.31	0.62	0.5	0.10	0.57	0.38	0.54	0.49	0.49
Cr	0.23	0.05	0.68	0.63	**0.82**	0.32	1	**0.79**	**0.78**	**0.78**	**0.76**	0.45	0.12	0.44	**0.75**	0.71	0.35	0.43	**0.80**
Co	0.12	0.05	**0.77**	0.65	**0.86**	0.45	0.68	1	**0.97**	**0.91**	**0.87**	0.38	0.16	0.39	**0.98**	**0.79**	0.17	0.40	**0.86**
Cu	0.12	0.13	**0.86**	0.65	**0.85**	0.32	0.68	**0.95**	1	**0.93**	**0.93**	0.35	0.1	0.38	**0.95**	**0.81**	0.12	0.38	**0.86**
Fe	0.30	0.14	**0.87**	0.71	**0.81**	0.29	0.70	**0.91**	**0.95**	1	**0.90**	0.48	0.23	0.39	**0.87**	0.73	0.26	0.52	**0.83**
Pb	0.14	0.38	**0.86**	0.65	**0.75**	0.16	0.64	0.74	**0.83**	**0.84**	1	0.30	0	0.38	**0.84**	**0.78**	0.08	0.31	**0.85**
Mg	0.46	0.06	0.19	0.54	0.38	0.60	0.34	0.42	0.35	0.46	0.27	1	0.50	0.35	0.36	0.25	0.55	0.55	0.37
Mn	0.51	-0.06	-0.07	0.40	0.03	0.41	-0.02	0.08	0.02	0.13	-0.06	0.43	1	0.11	0.17	0.03	0.50	0.72	0.17
Mo	0.01	0.00	0.21	0.18	0.24	0.06	0.32	0.29	0.28	0.28	0.24	0.24	0	1	0.33	0.32	0.13	0.25	0.38
Ni	0.11	0.04	**0.79**	0.66	**0.87**	0.46	0.68	**0.98**	**0.94**	**0.87**	0.74	0.37	0.08	0.22	1	**0.80**	0.17	0.40	**0.86**
Se	0.06	0.07	**0.80**	0.59	0.74	0.28	0.65	**0.76**	**0.81**	**0.77**	0.74	0.25	0	0.21	**0.78**	1	0.06	0.28	**0.77**
Sr	0.74	-0.03	0.03	0.47	0.18	0.54	0.27	0.17	0.10	0.22	0.04	0.57	0.46	-0.01	0.15	0.06	1	0.61	0.23
V	0.69	0.03	0.31	0.55	0.28	0.37	0.29	0.35	0.36	0.50	0.26	0.49	0.67	0.11	0.35	0.27	0.57	1	0.38
Zn	0.23	0.08	**0.76**	0.73	**0.82**	0.40	0.72	**0.80**	**0.78**	**0.78**	**0.78**	0.34	0.09	0.21	**0.81**	0.72	0.25	0.32	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.5.3: Pearsons and Spearmans Correlations for 10 to 20 cm Urban Soil in Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	0.02	0.17	0.52	0.09	0.36	0.44	0.21	0.20	0.49	0.18	0.26	0.43	0.03	0.23	0.10	**0.79**	0.61	0.28
Sb	0.03	1	0.20	0.09	0.19	0.02	0.21	0.20	0.23	0.17	0.26	-0.06	-0.03	0.02	0.20	0.17	-0.01	0.03	0.21
As	0.03	0.21	1	0.67	0.61	0.07	0.63	**0.87**	**0.91**	**0.75**	**0.93**	-0.15	-0.19	0.1	**0.86**	0.73	0.06	0.11	**0.78**
Ba	0.56	0.09	0.58	1	0.55	0.47	0.75	0.70	0.68	0.70	0.71	0.26	0.32	0.1	0.71	0.58	0.44	0.46	**0.76**
Cd	0.08	0.12	0.62	0.45	1	0.30	0.64	0.74	0.70	0.58	0.67	0.12	0.08	0.32	0.72	0.62	0.07	0.21	0.68
Ca	0.37	-0.03	-0.02	0.40	0.33	1	0.50	0.31	0.22	0.23	0.17	0.52	0.53	0.28	0.32	0.29	0.54	0.53	0.39
Cr	0.43	0.15	0.49	0.59	0.65	0.37	1	**0.76**	0.71	0.72	0.69	0.31	0.22	0.18	**0.74**	0.64	0.43	0.43	**0.75**
Co	0.09	0.18	0.74	0.49	**0.84**	0.23	0.72	1	**0.96**	**0.78**	**0.93**	0.03	-0.01	0.22	**0.97**	**0.76**	0.17	0.19	**0.89**
Cu	0.10	0.22	**0.82**	0.51	**0.79**	0.13	0.68	**0.94**	1	**0.80**	**0.96**	-0.02	-0.06	0.16	**0.94**	**0.77**	0.13	0.17	**0.88**
Fe	0.39	0.19	0.70	0.61	0.69	0.22	**0.78**	**0.85**	**0.85**	1	**0.78**	0.25	0.19	0.16	0.72	0.59	0.37	0.45	0.74
Pb	0.08	0.31	**0.85**	0.61	0.69	0.05	0.57	**0.81**	**0.90**	**0.77**	1	-0.04	-0.06	0.14	**0.90**	0.73	0.11	0.12	**0.88**
Mg	0.45	0.01	-0.06	0.37	0.20	0.47	0.49	0.12	0.06	0.38	0.03	1	0.52	0.28	-0.03	0.07	0.39	0.42	0.11
Mn	0.48	-0.02	-0.18	0.42	0.04	0.55	0.19	-0.06	-0.09	0.18	-0.05	0.54	1	0.1	-0.03	-0.07	0.56	0.67	0.16
Mo	-0.03	-0.04	0.07	0.04	0.45	0.26	0.48	0.39	0.30	0.34	0.19	0.26	0.01	1	0.17	0.15	0.02	0.09	0.19
Ni	0.10	0.18	**0.77**	0.52	**0.81**	0.23	0.69	**0.98**	**0.93**	**0.79**	**0.81**	0.06	-0.08	0.29	1	**0.75**	0.18	0.18	**0.87**
Se	0.06	0.23	**0.85**	0.56	0.65	0.17	0.55	**0.77**	**0.80**	0.68	**0.76**	0.06	-0.07	0.15	0.78	1	0.06	0.13	0.71
Sr	**0.75**	-0.08	-0.06	0.45	0.04	0.57	0.32	0.06	0.02	0.24	0.01	0.38	0.53	0.02	0.06	0.01	1	0.59	0.24
V	0.67	0.03	0.04	0.45	0.17	0.37	0.43	0.13	0.12	0.44	0.08	0.59	0.69	0.05	0.12	0.08	0.53	1	0.25
Zn	0.26	0.19	0.64	0.69	0.67	0.25	0.63	0.74	**0.75**	0.68	**0.81**	0.17	0.16	0.22	0.74	0.65	0.19	0.20	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.6 Copper Cliff

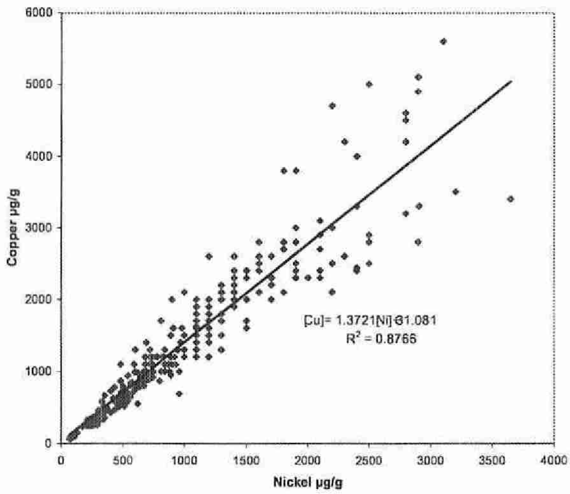


Fig. 10.4.6.1: Cu vs. Ni, 0-5cm, Copper Cliff

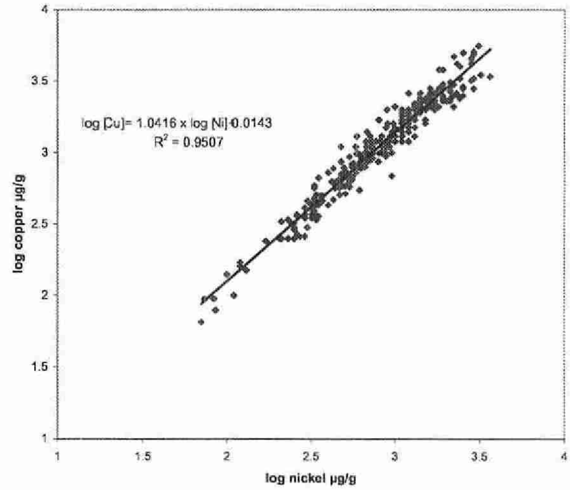


Fig. 10.4.6.1b: log Cu vs. log Ni, 0-5cm, Copper Cliff

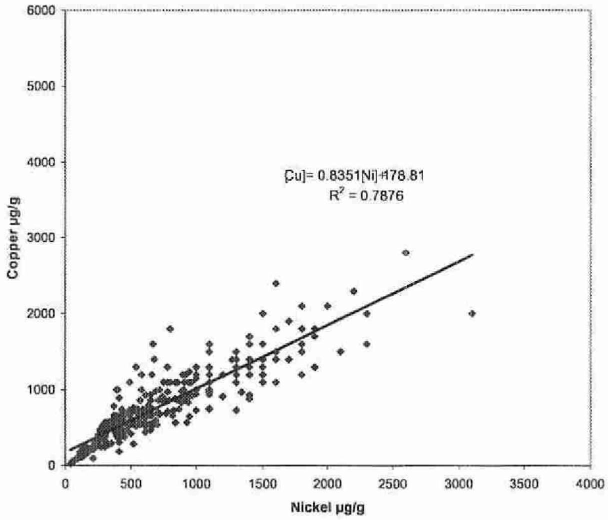


Fig. 10.4.6.2: Cu vs. Ni, 5-10cm, Copper Cliff

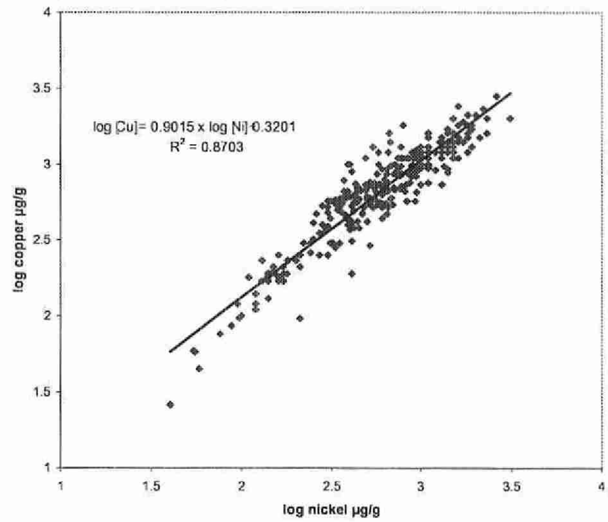


Fig. 10.4.6.2b: log Cu vs. log Ni, 5-10cm, Copper Cliff

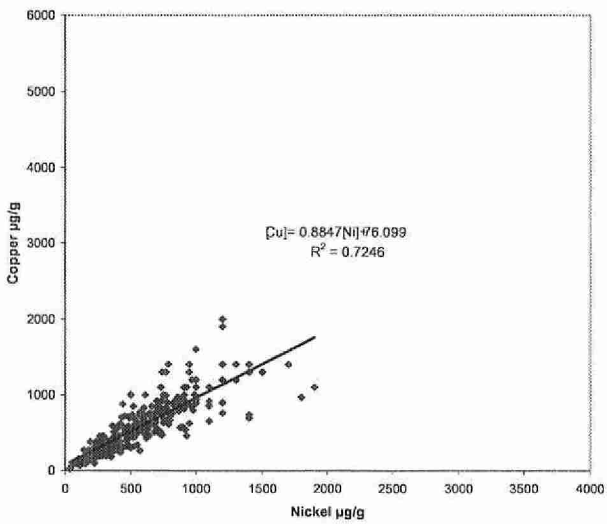


Fig. 10.4.6.3: Cu vs. Ni, 10-20cm, Copper Cliff

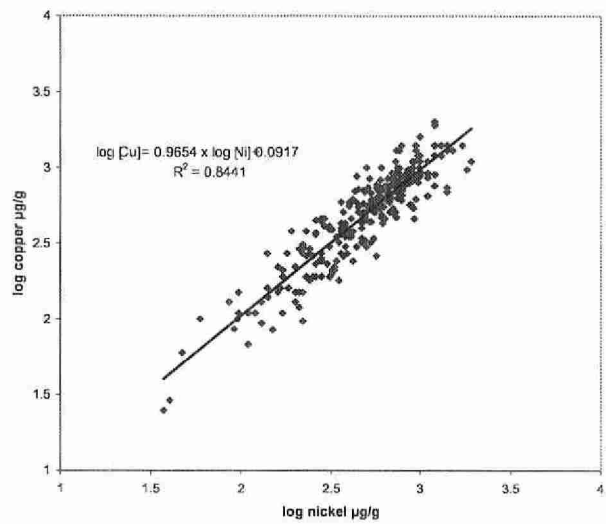


Fig. 10.4.6.3b: log Cu vs. log Ni, 10-20cm, Copper Cliff

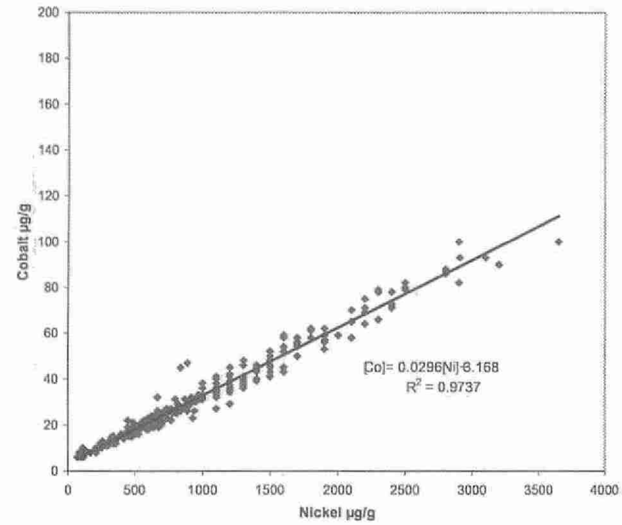


Fig. 10.4.6.4: Co vs. Ni, 0-5cm, Copper Cliff

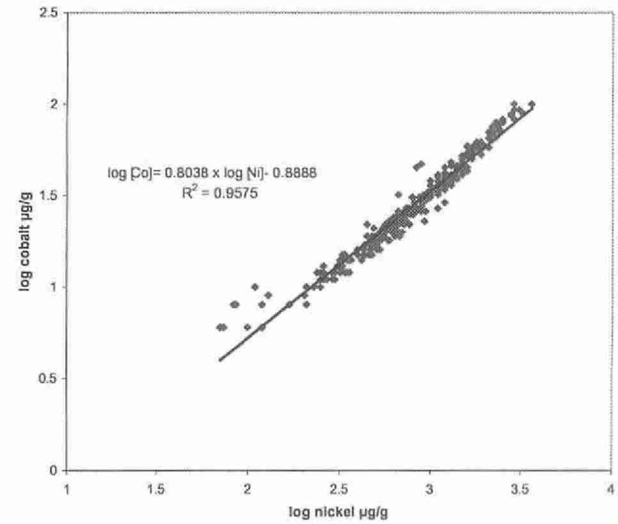


Fig. 10.4.6.4b: log Co vs. log Ni, 0-5cm, Copper Cliff

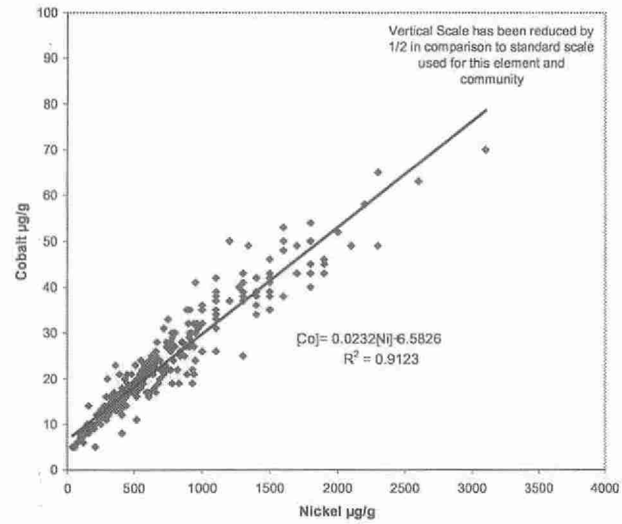


Fig. 10.4.6.5: Co vs. Ni, 5-10cm, Copper Cliff

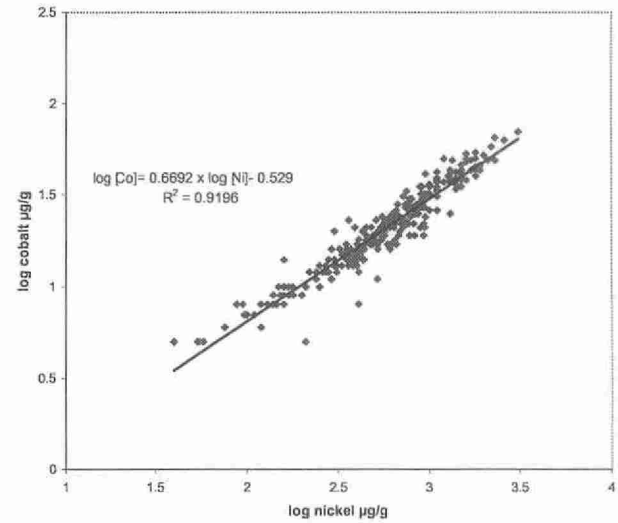


Fig. 10.4.6.5b: log Co vs. log Ni, 5-10cm, Copper Cliff

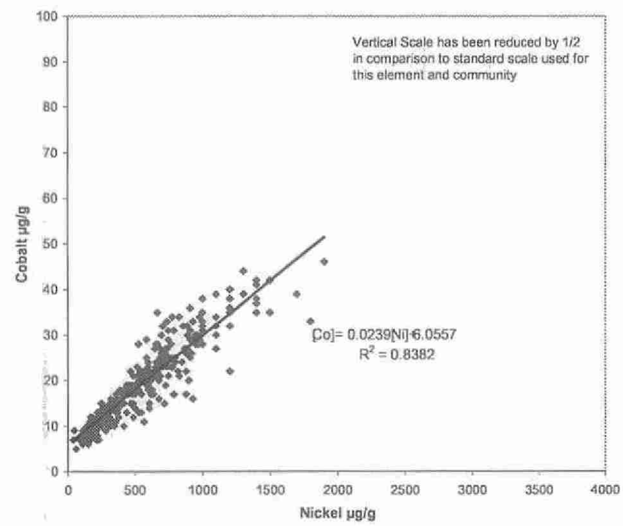


Fig. 10.4.6.6: Co vs. Ni, 10-20 cm, Copper Cliff

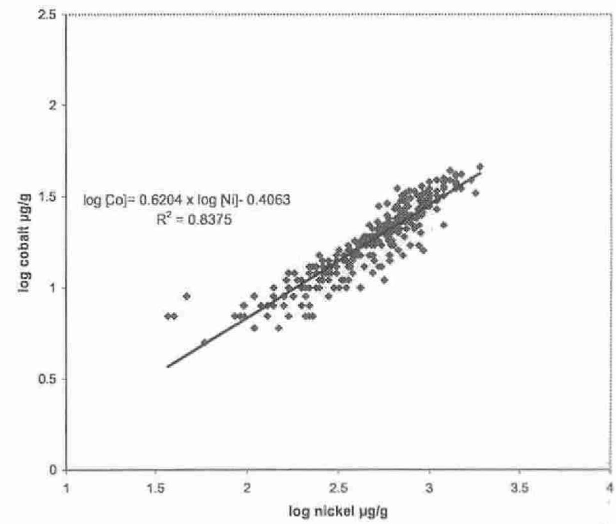


Fig. 10.4.6.6b: log Co vs. log Ni, 10-20cm, Copper Cliff

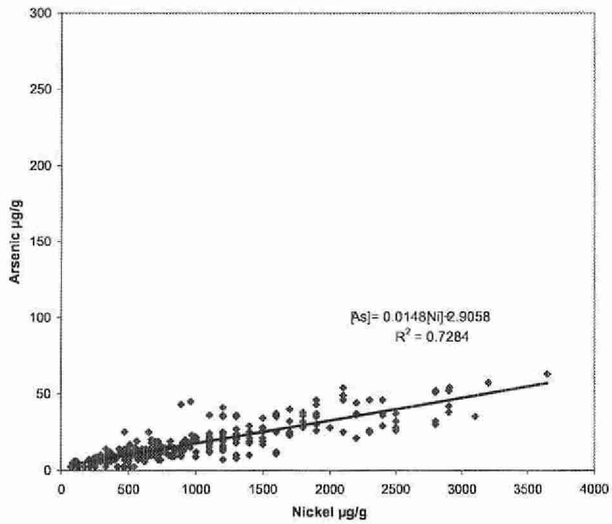


Fig. 10.4.6.7: As vs. Ni, 0-5cm, Copper Cliff

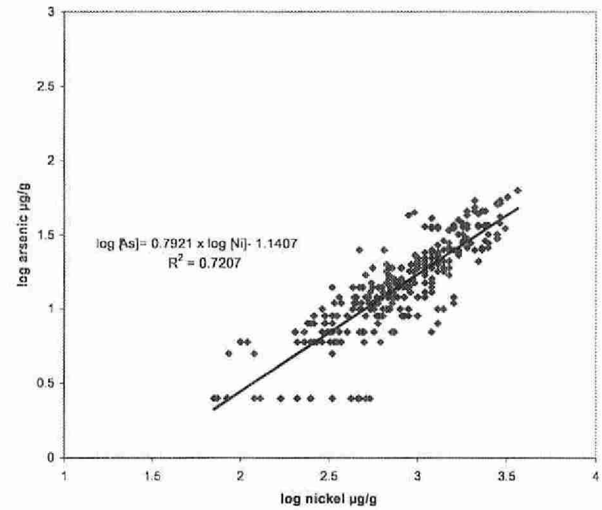


Fig. 10.4.6.7b: log As vs. log Ni, 0-5cm, Copper Cliff

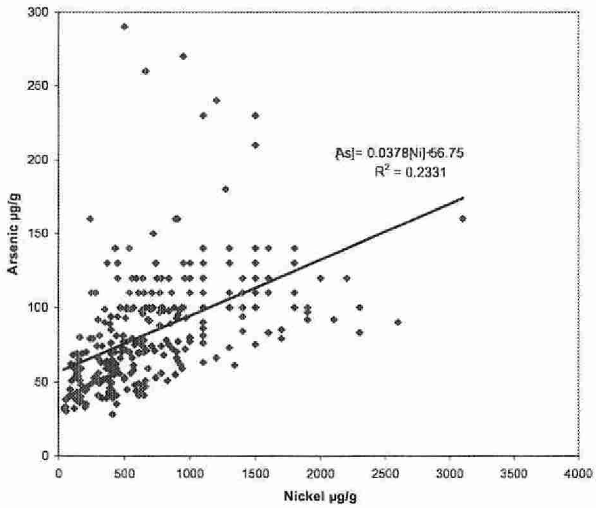


Fig. 10.4.6.8: As vs. Ni, 5-10cm, Copper Cliff

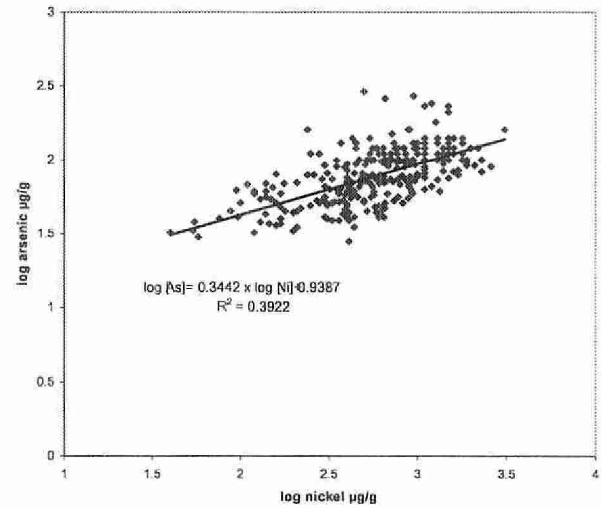


Fig. 10.4.6.8b: log As vs. log Ni, 5-10cm, Copper Cliff

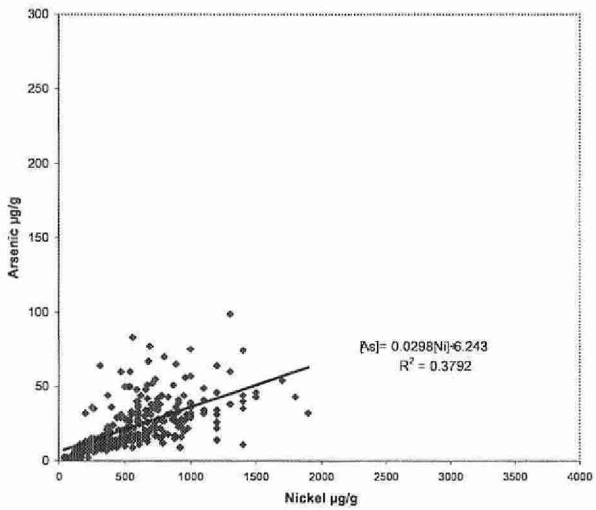


Fig. 10.4.6.9: As vs. Ni, 10-20cm, Copper Cliff

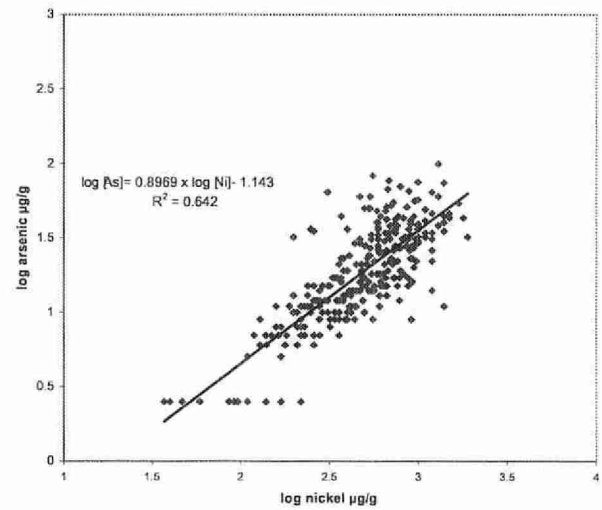


Fig. 10.4.6.9b: log As vs. log Ni, 10-20cm, Copper Cliff

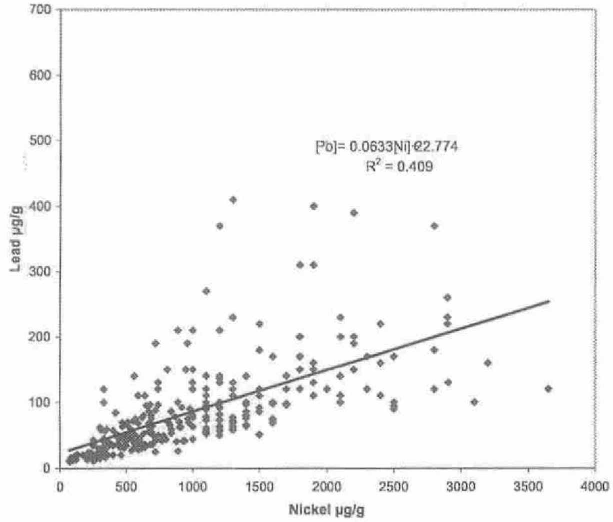


Fig. 10.4.6.10: Pb vs. Ni, 0-5cm, Copper Cliff

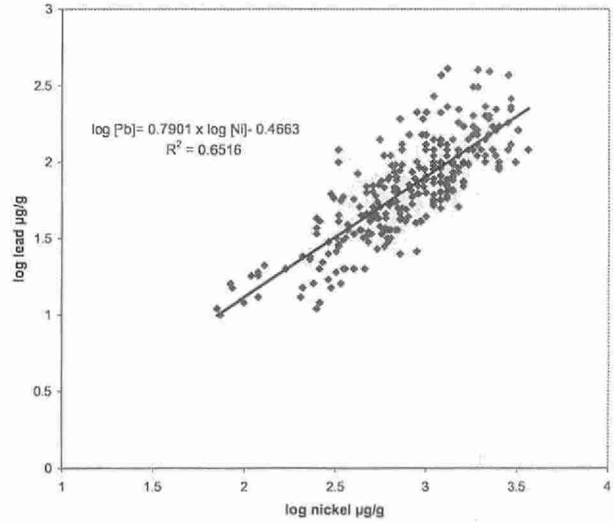


Fig. 10.4.6.10b: log Pb vs. log Ni, 0-5cm, Copper Cliff

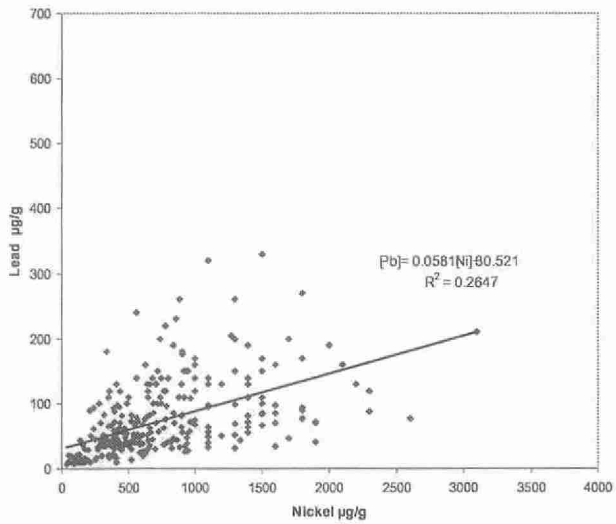


Fig. 10.4.6.11: Pb vs. Ni, 5-10cm, Copper Cliff

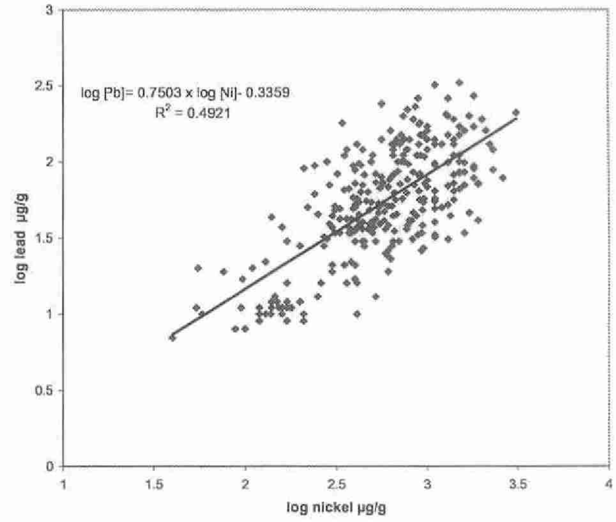


Fig. 10.4.6.11b: log Pb vs. log Ni, 5-10cm, Copper Cliff

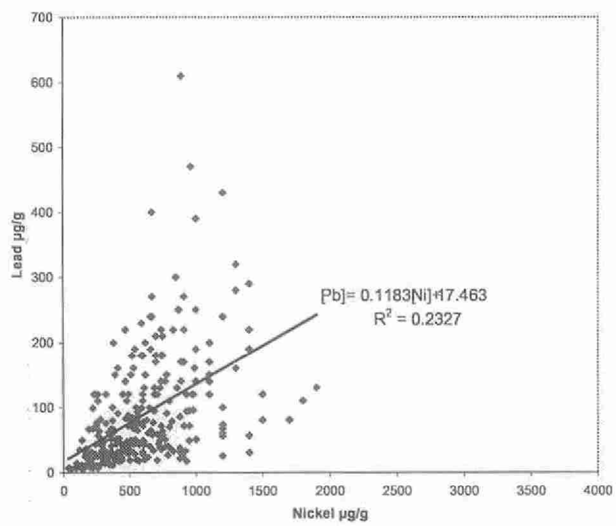


Fig. 10.4.6.12: Pb vs. Ni, 10-20cm, Copper Cliff

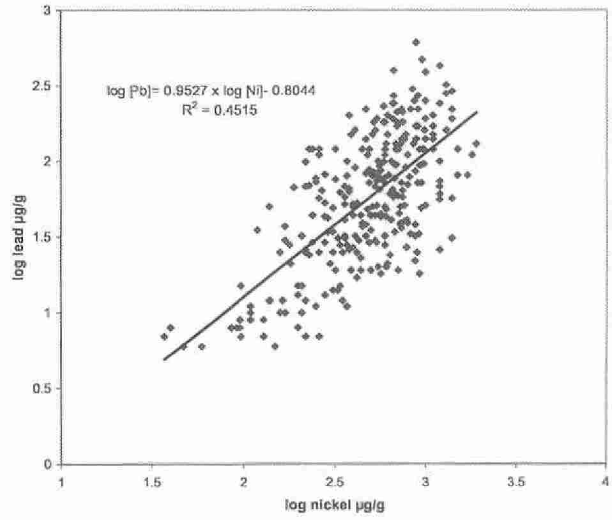


Fig. 10.4.6.12b: log Pb vs. log Ni, 10-20cm, Copper Cliff

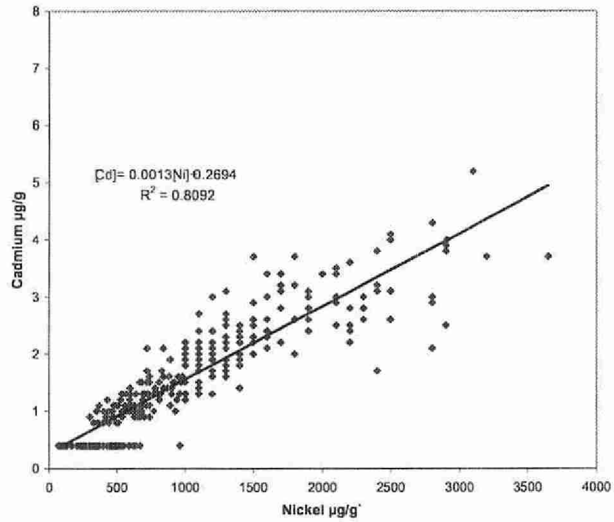


Fig. 10.4.6.13: Cd vs. Ni, 0-5cm, Copper Cliff

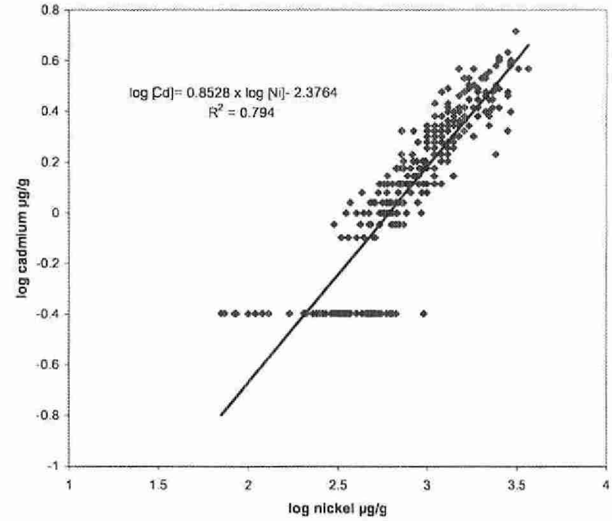


Fig. 10.4.6.13b: log Cd vs. log Ni, 0-5cm, Copper Cliff

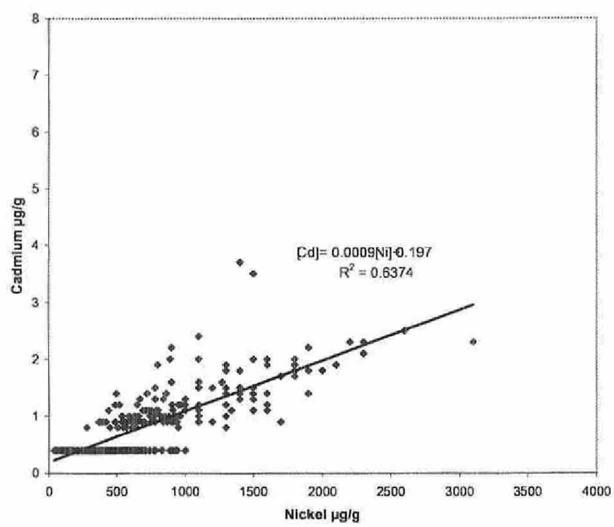


Fig. 10.4.6.14: Cd vs. Ni, 5-10cm, Copper Cliff

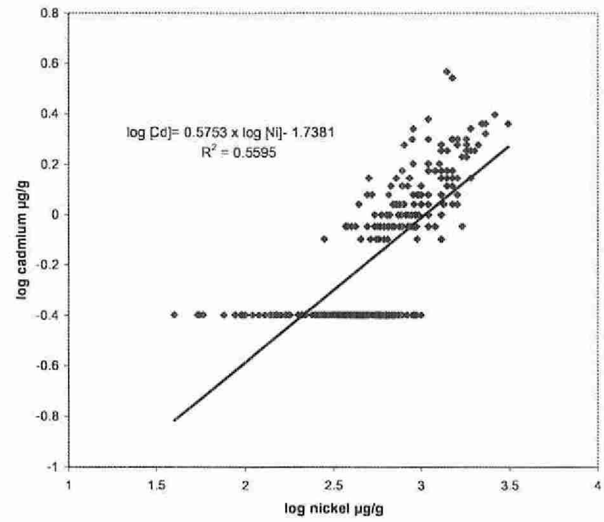


Fig. 10.4.6.14b: log Cd vs. log Ni, 5-10cm, Copper Cliff

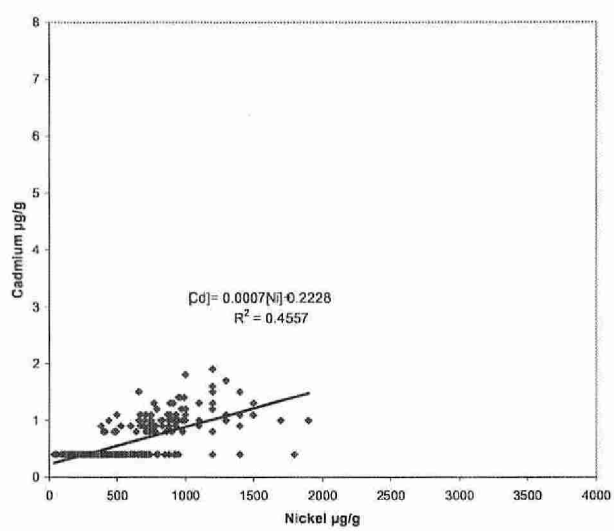


Fig. 10.4.6.15: Cd vs. Ni, 10-20cm, Copper Cliff

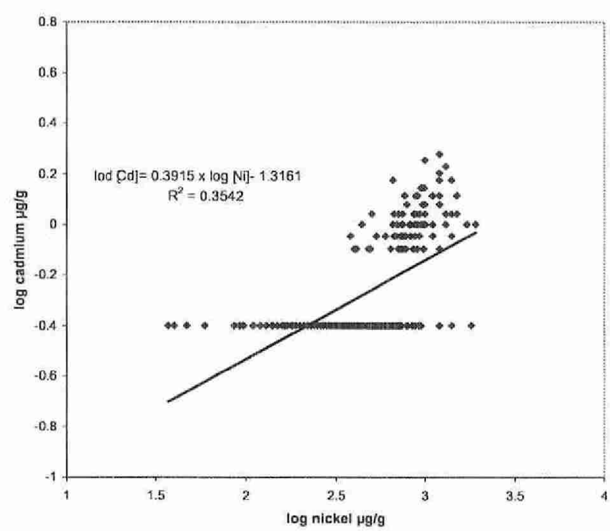


Fig. 10.4.6.15b: log Cd vs log Ni, 10-20cm, Copper Cliff

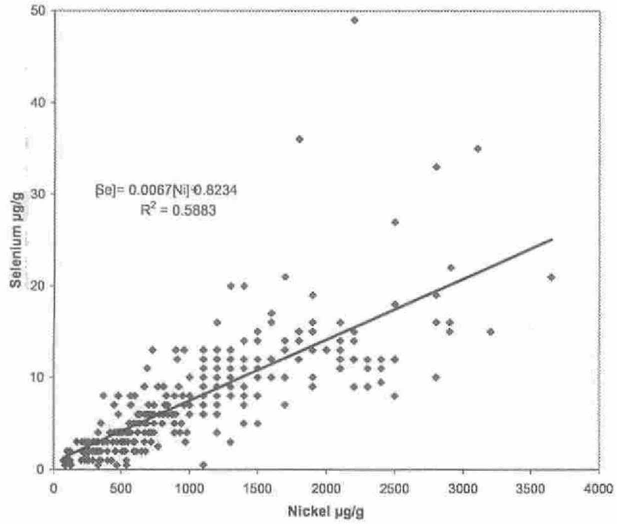


Fig. 10.4.6.16: Se vs. Ni, 0-5cm, Copper Cliff

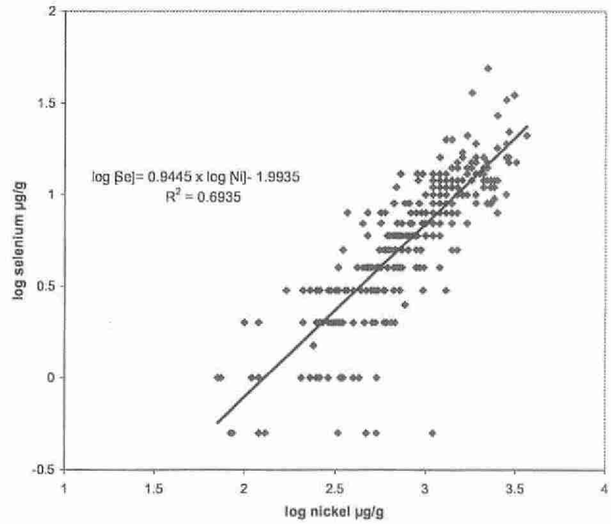


Fig. 10.4.6.16b: log Se vs. log Ni, 0-5cm, Copper Cliff

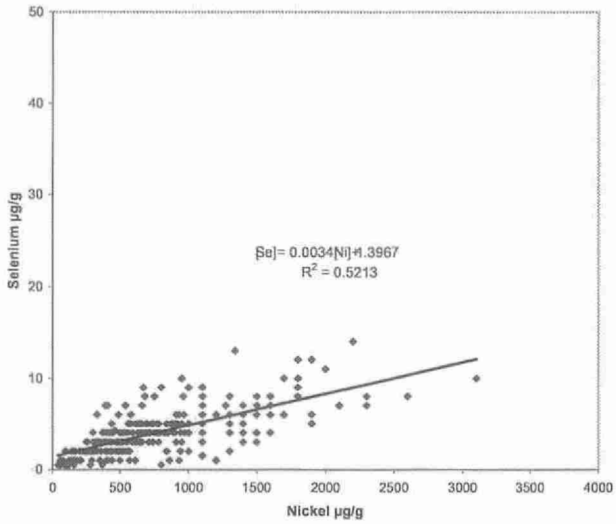


Fig. 10.4.6.17: Se vs. Ni, 5-10cm, Copper Cliff

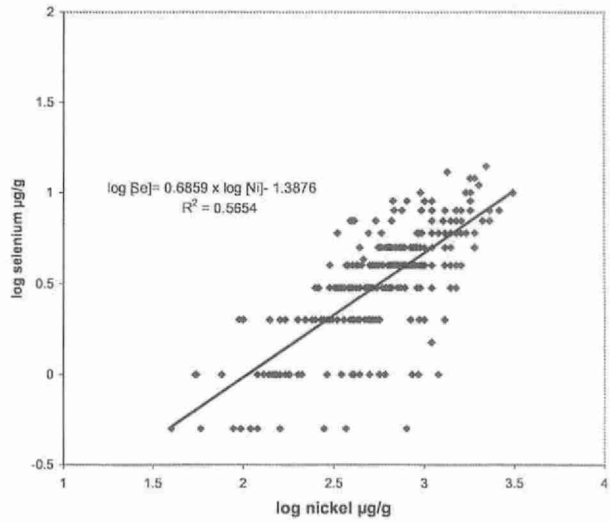


Fig. 10.4.6.17b: log Se vs. log Ni, 5-10cm, Copper Cliff

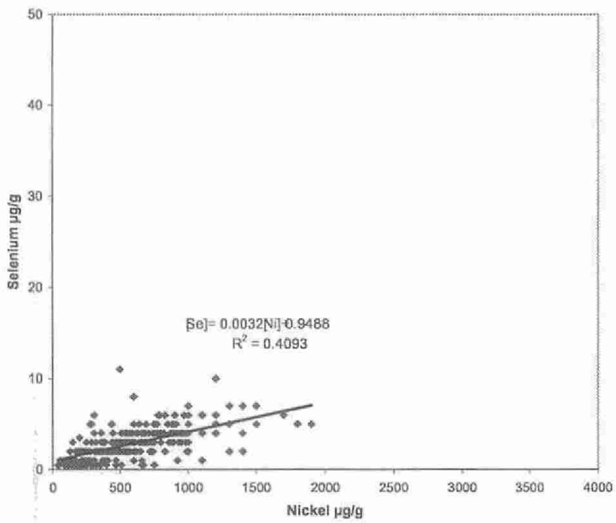


Fig. 10.4.6.18: Se vs. Ni, 10-20cm, Copper Cliff

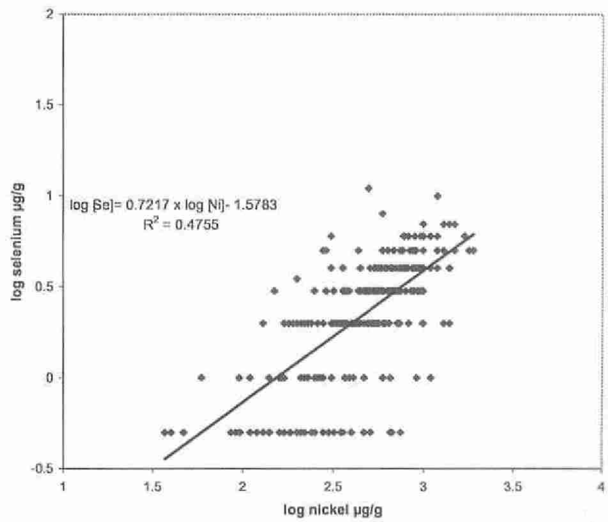


Fig. 10.4.6.18b: log Se vs. log Ni, 10-20cm, Copper Cliff

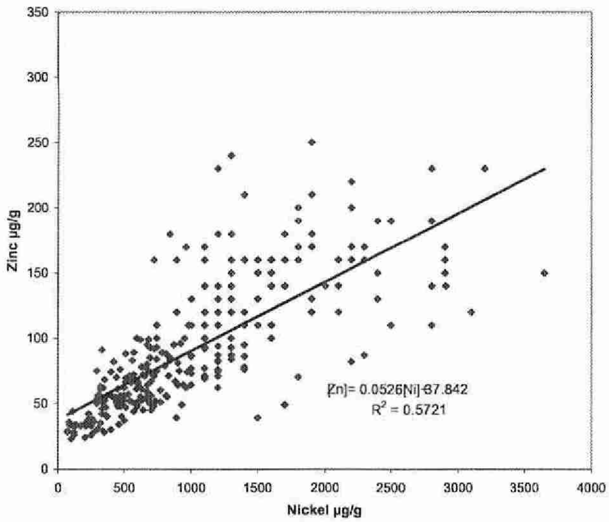


Fig. 10.4.6.19: Zn vs. Ni, 0-5cm, Copper Cliff

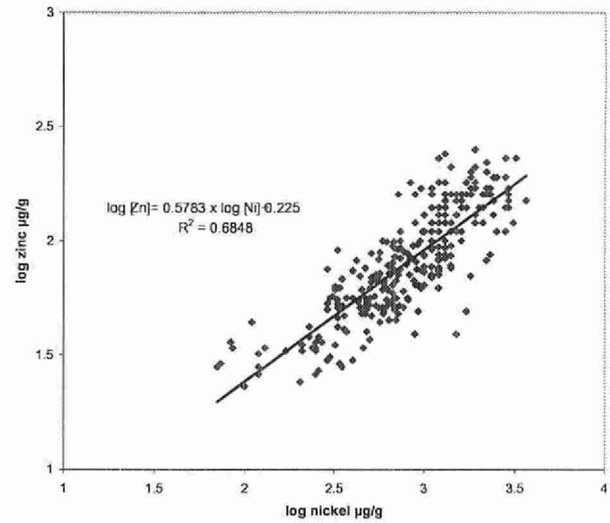


Fig. 10.4.6.19b: log Zn vs. log Ni, 0-5cm, Copper Cliff

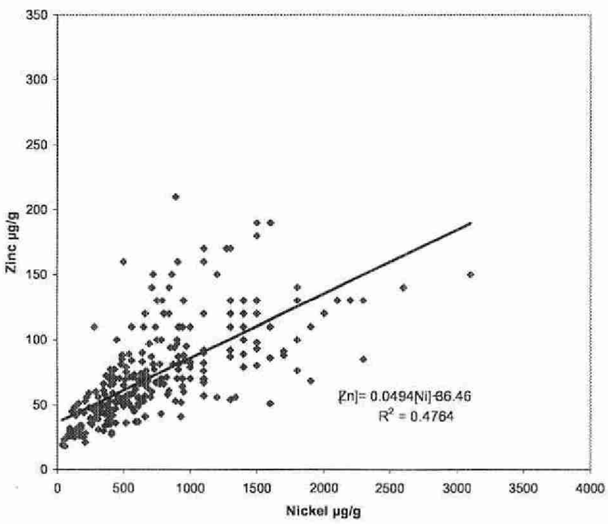


Fig. 10.4.6.20: Zn vs. Ni, 5-10cm, Copper Cliff

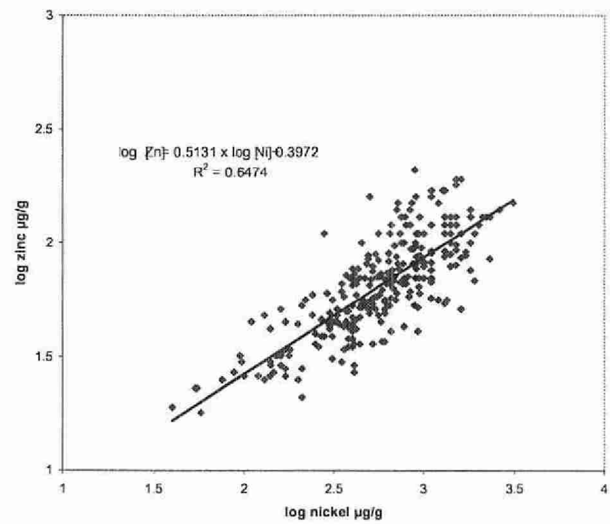


Fig. 10.4.6.20b: log Zn vs. log Ni, 5-10cm, Copper Cliff

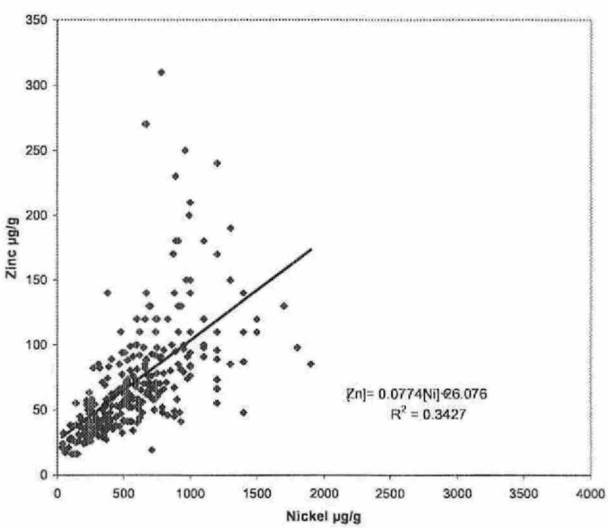


Fig. 10.4.6.21: Zn vs. Ni, 10-20cm, Copper Cliff

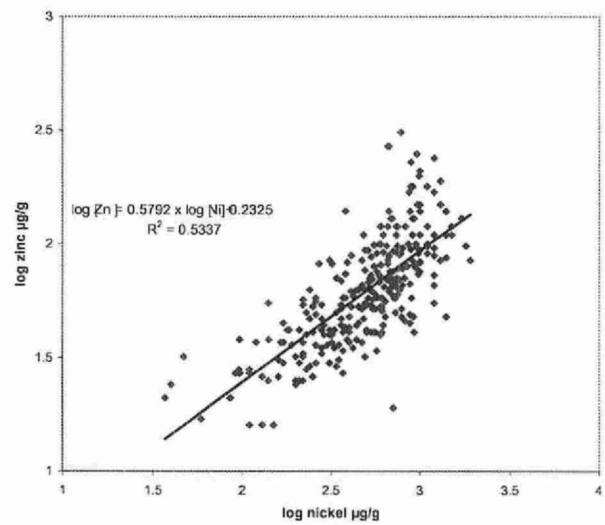


Fig. 10.4.6.21b: log Zn vs. log Ni, 10-20cm, Copper Cliff

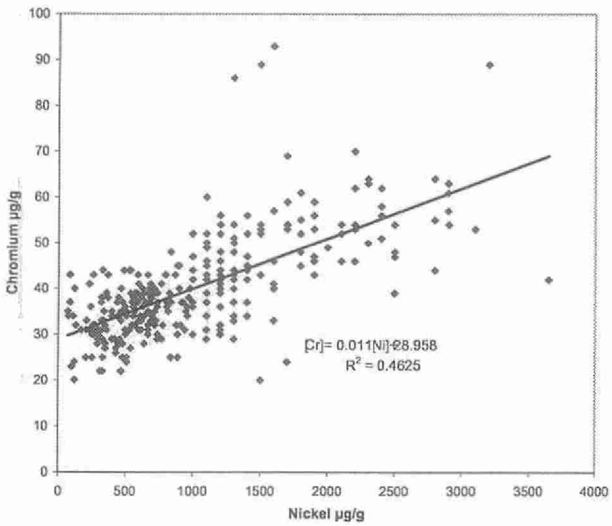


Fig. 10.4.6.22: Cr vs. Ni, 0-5cm, Copper Cliff

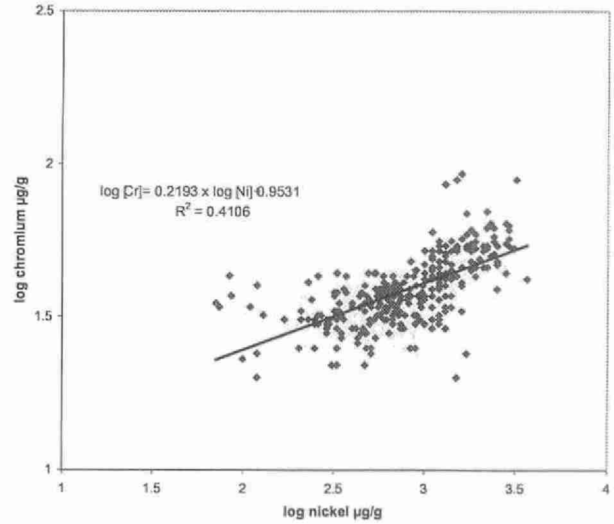


Fig. 10.4.6.22b: log Cr vs. log Ni, 0-5cm, Copper Cliff

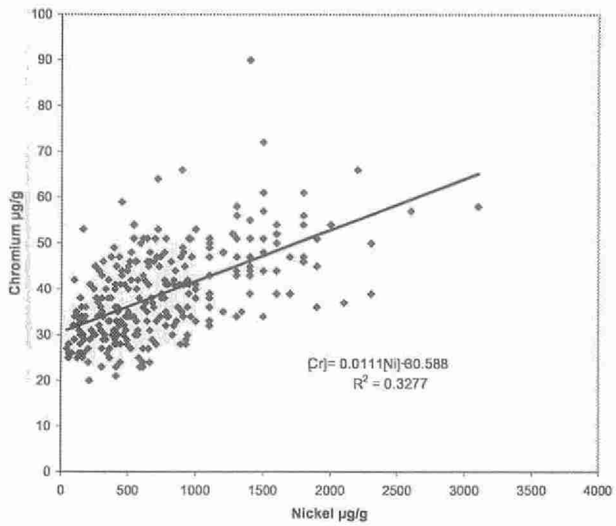


Fig. 10.4.6.23: Cr vs. Ni, 5-10cm, Copper Cliff

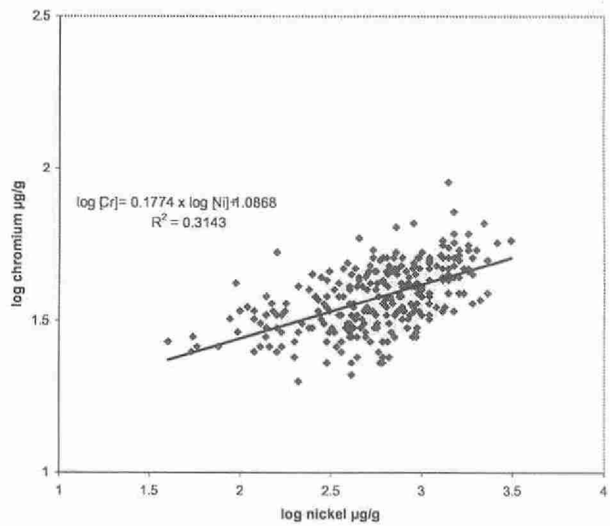


Fig. 10.4.6.23b: log Cr vs. log Ni, 5-10cm, Copper Cliff

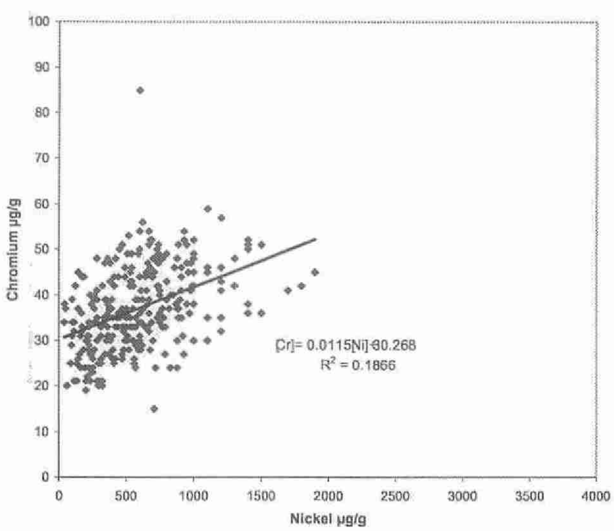


Fig. 10.4.6.24: Cr vs. Ni, 10-20cm, Copper Cliff

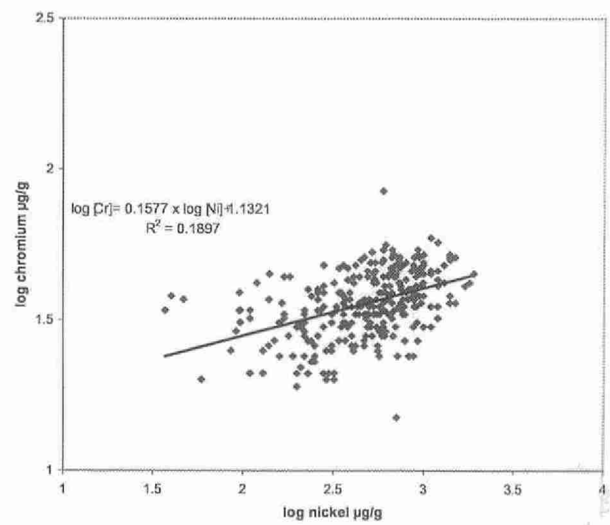


Fig. 10.4.6.24b: log Cr vs. log Ni, 10-20cm, Copper Cliff

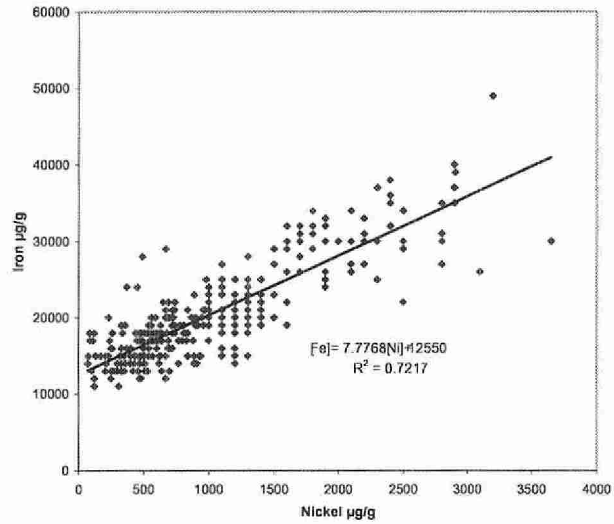


Fig. 10.4.6.25: Fe vs. Ni, 0-5cm, Copper Cliff

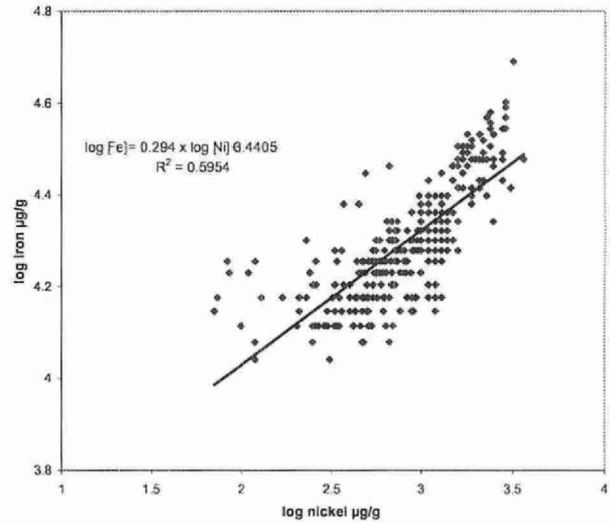


Fig. 10.4.6.25b: log Fe vs. log Ni, 0-5cm, Copper Cliff

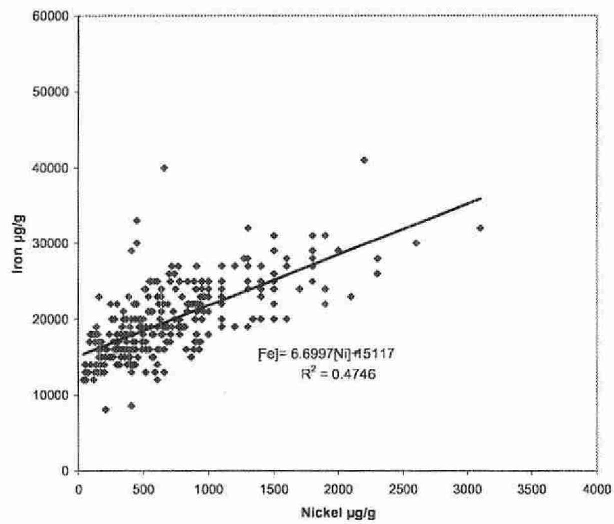


Fig. 10.4.6.26: Fe vs. Ni, 5-10cm, Copper Cliff

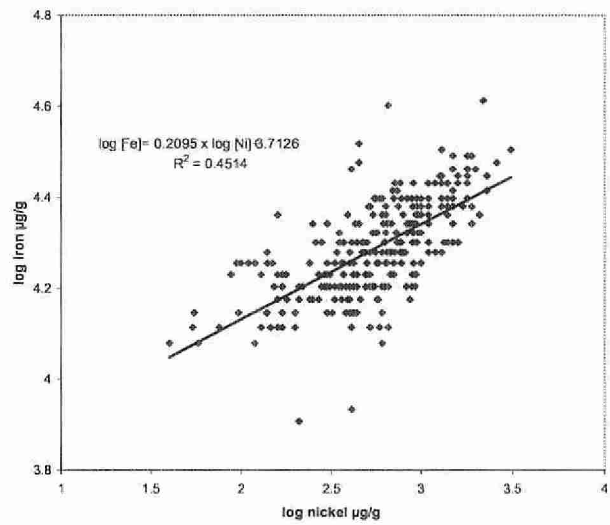


Fig. 10.4.6.26b: log Fe vs. log Ni, 5-10cm, Copper Cliff

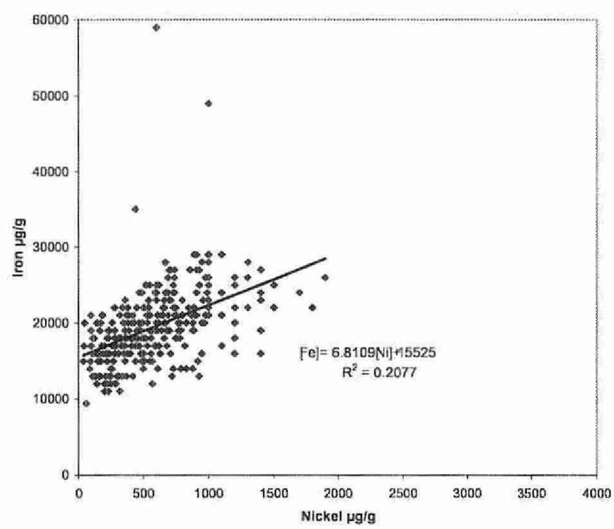


Fig. 10.4.6.27: Fe vs. Ni, 10-20cm, Copper Cliff

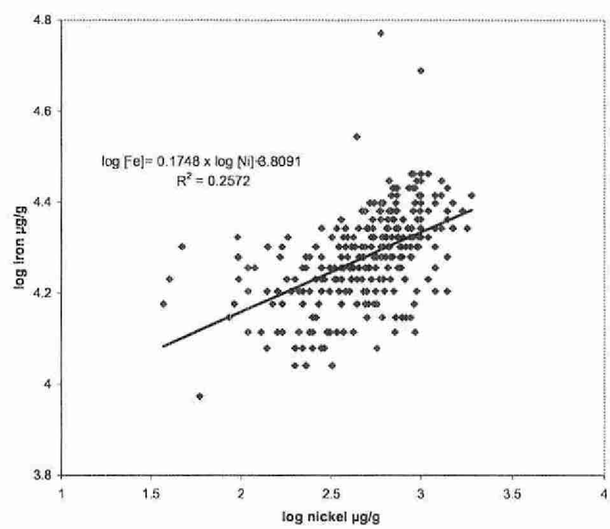


Fig. 10.4.6.27b: log Fe vs. log Ni, 10-20cm, Copper Cliff

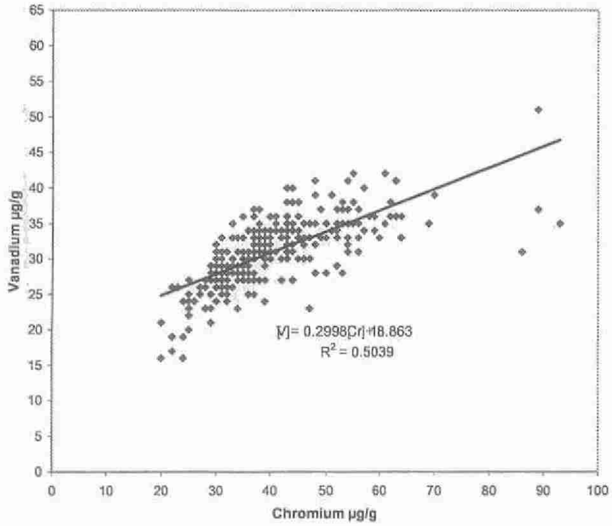


Fig. 10.4.6.28: V vs. Cr, 0-5cm, Copper Cliff

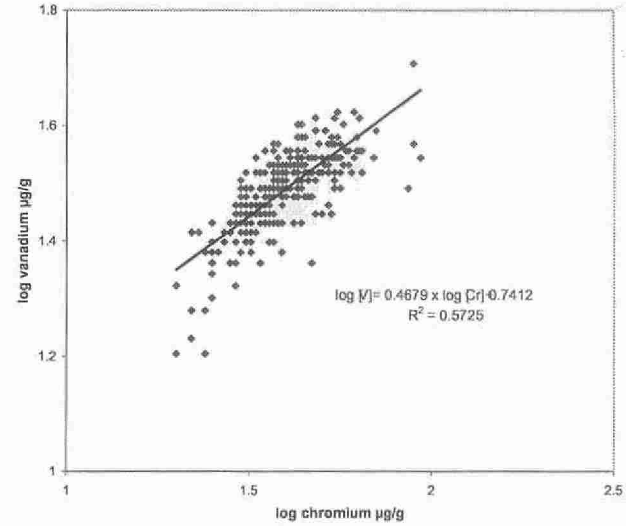


Fig. 10.4.6.28b: log V vs. log Cr, 0-5cm, Copper Cliff

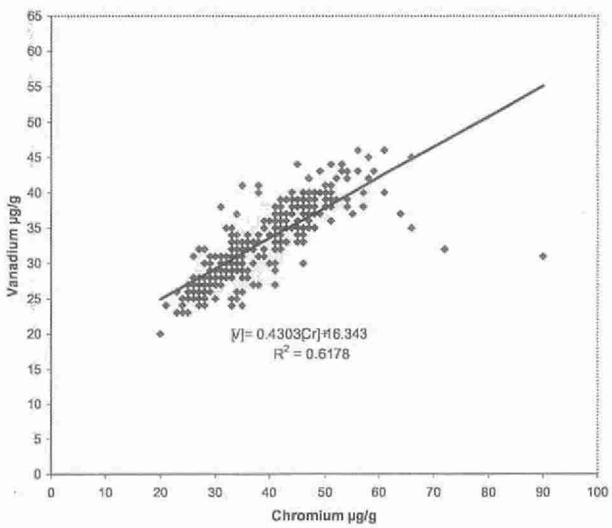


Fig. 10.4.6.29: V vs. Cr, 5-10cm, Copper Cliff

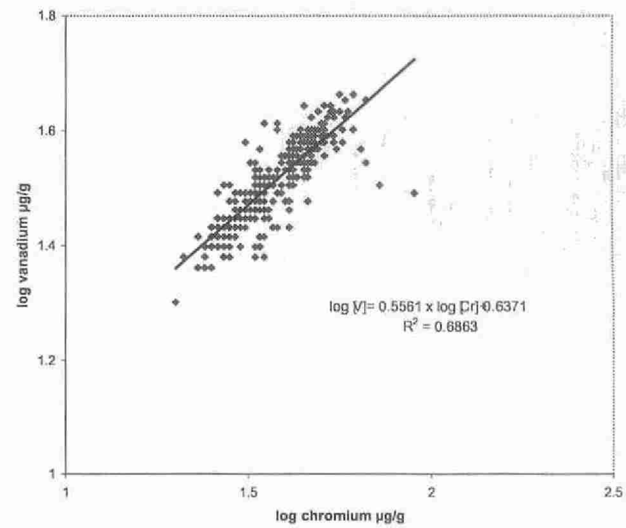


Fig. 10.4.6.29b:log V vs. log Cr, 5-10cm, Copper Cliff

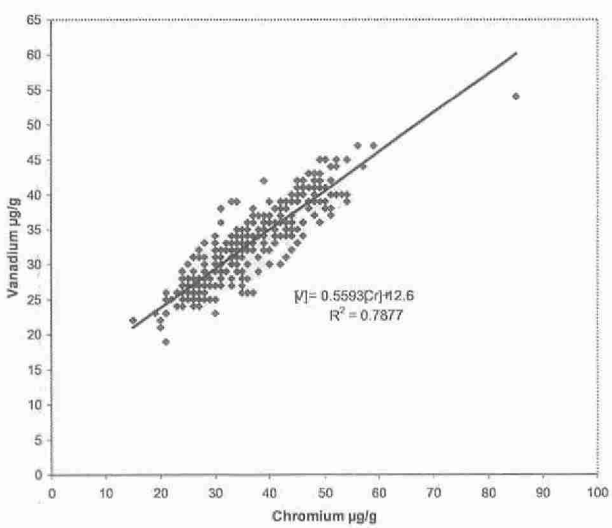


Fig. 10.4.6.30: V vs. Cr, 10-20cm, Copper Cliff

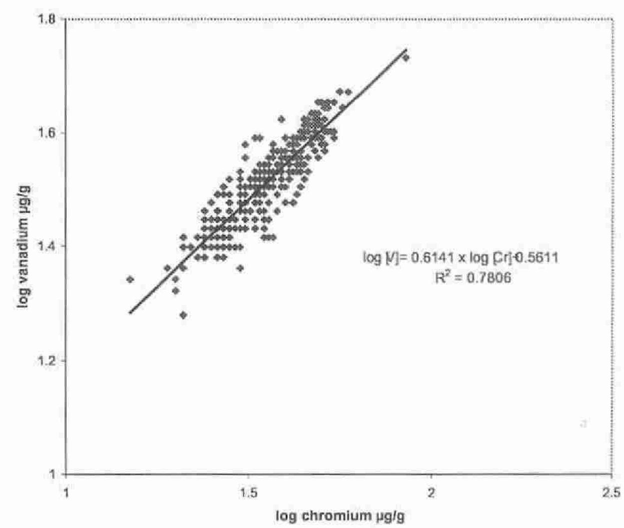


Fig. 10.4.6.30b: log V vs. log Cr, 10-20cm, Copper Cliff

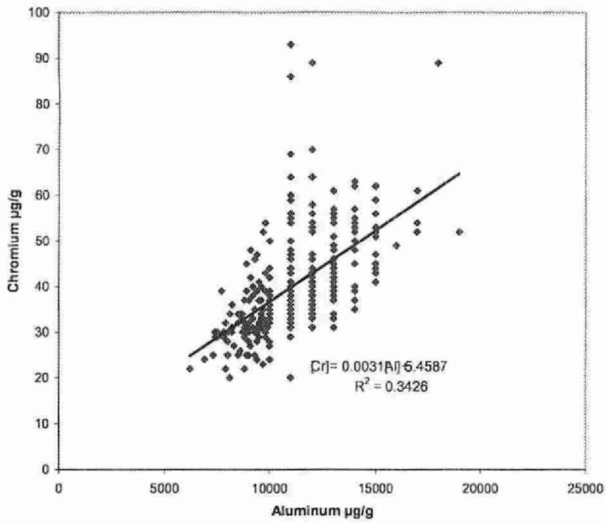


Fig. 10.4.6.31: Cr vs. Al, 0-5cm, Copper Cliff

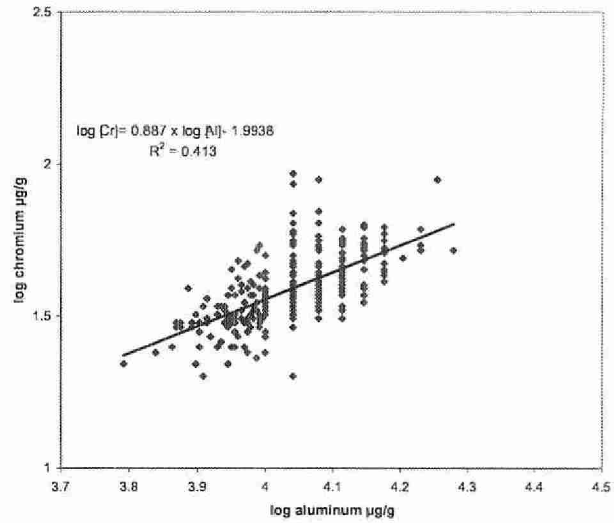


Fig. 10.4.6.31b: log Cr vs log Al, 0-5cm, Copper Cliff

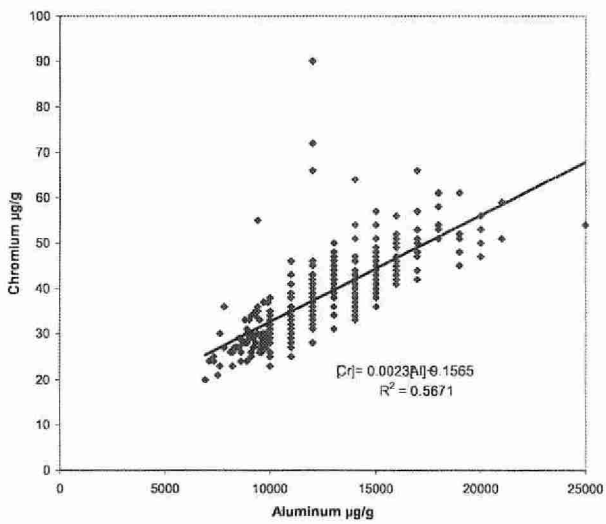


Fig. 10.4.6.32: Cr vs. Al, 5-10cm, Copper Cliff

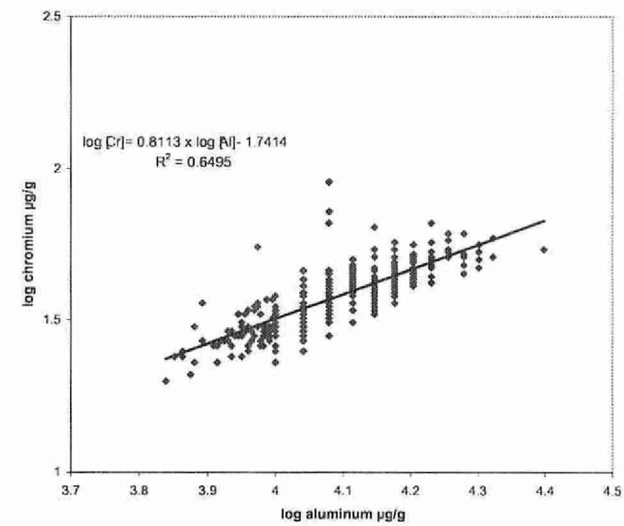


Fig. 10.4.6.32b: log Cr vs. log Al, 5-10cm, Copper Cliff

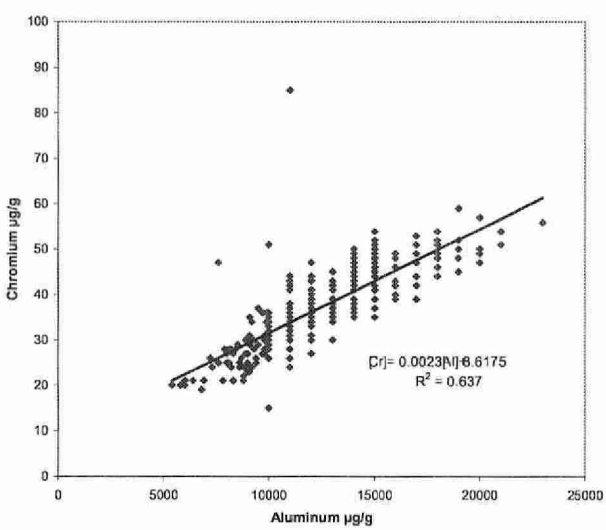


Fig. 10.4.6.33: Cr vs. Al, 10-20cm, Copper Cliff

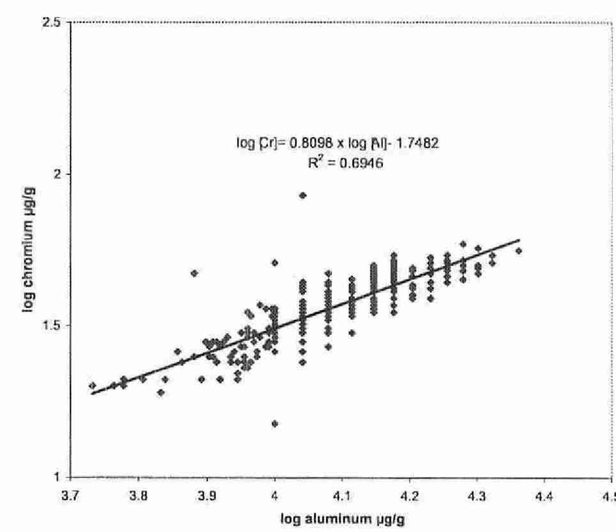


Fig. 10.4.6.33b: log Cr vs. log Al, 10-20cm, Copper Cliff

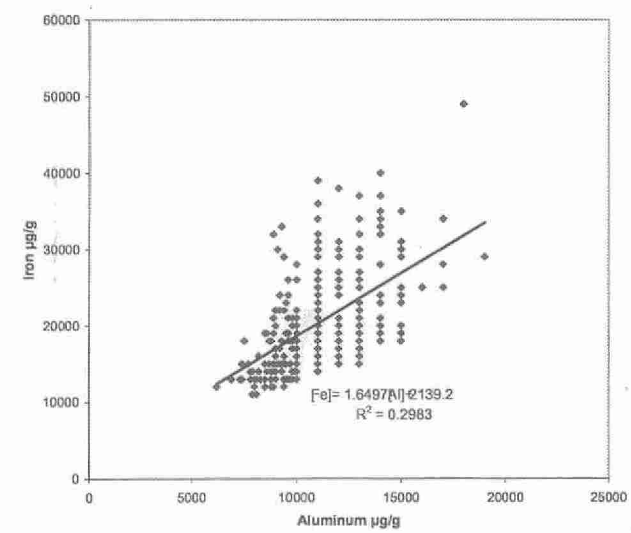


Fig. 10.4.6.34: Fe vs. Al, 0-5cm, Copper Cliff

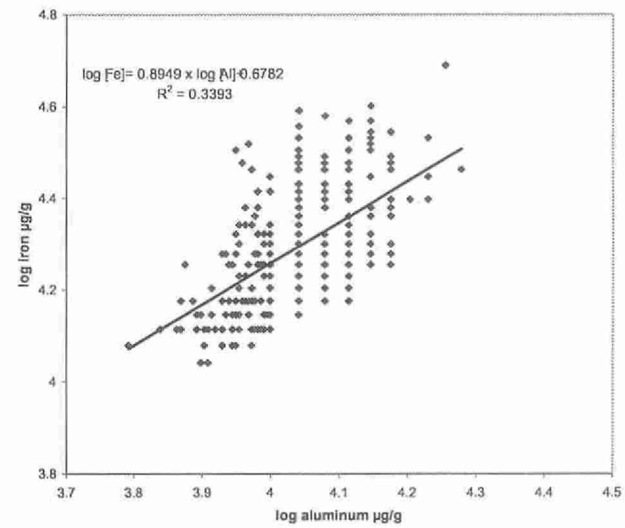


Fig. 10.4.6.34b: log Fe vs. log Al, 0-5cm, Copper Cliff

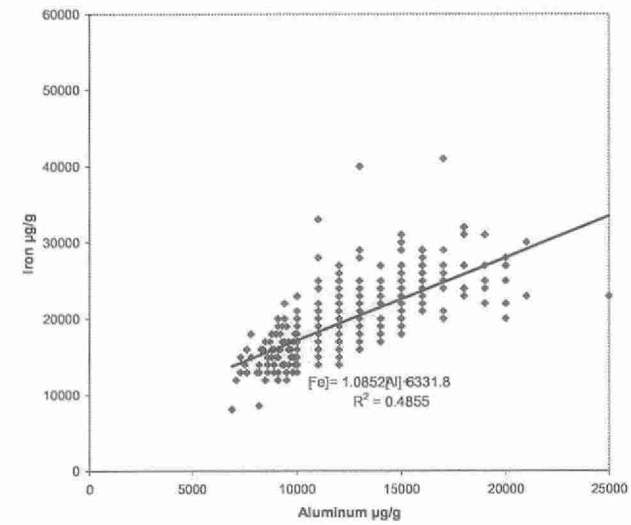


Fig. 10.4.6.35: Fe vs. Al, 5-10cm, Copper Cliff

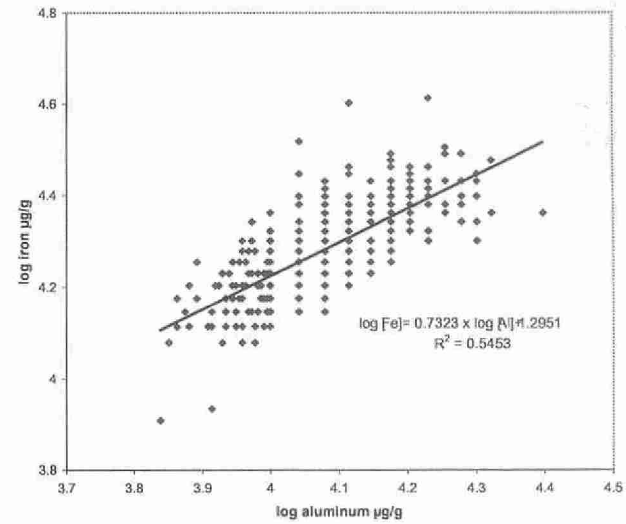


Fig. 10.4.6.35b: log Fe vs. log Al, 5-10cm, Copper Cliff

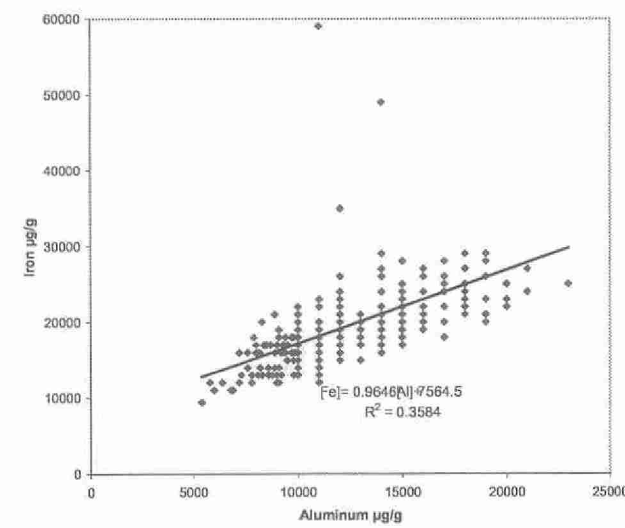


Fig. 10.4.6.36: Fe vs. Al, 10-20cm, Copper Cliff

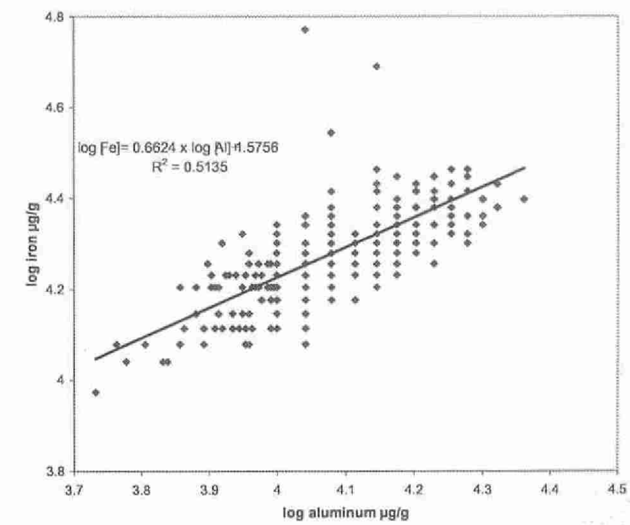


Fig. 10.4.6.36b: log Fe vs. log Al, 10-20cm, Copper Cliff

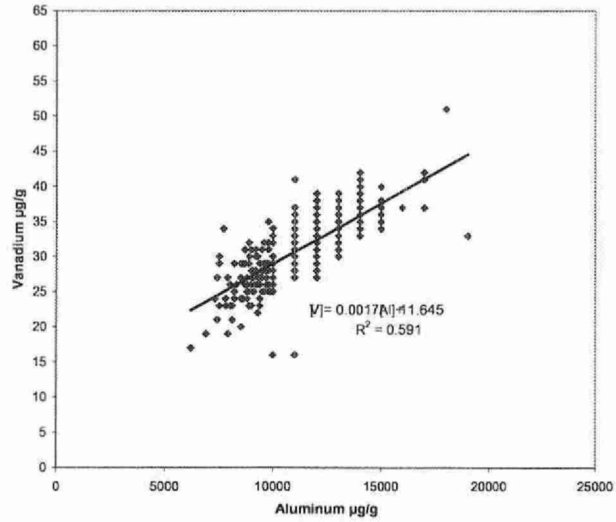


Fig. 10.4.6.37: V vs. Al, 0-5cm, Copper Cliff

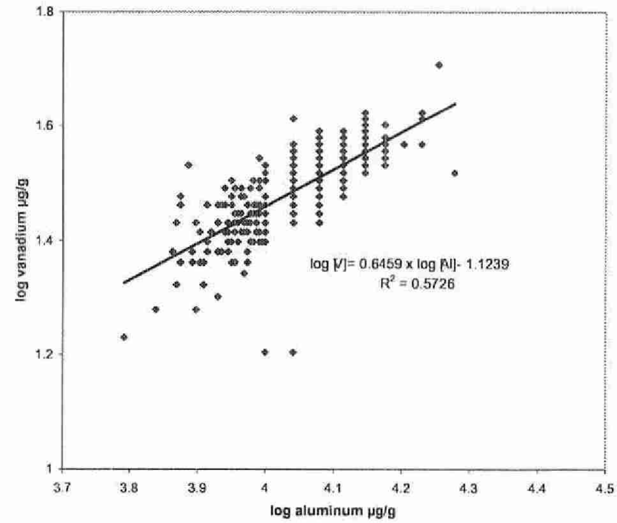


Fig. 10.4.6.37b: log V vs log Al, 0-5cm, Copper Cliff

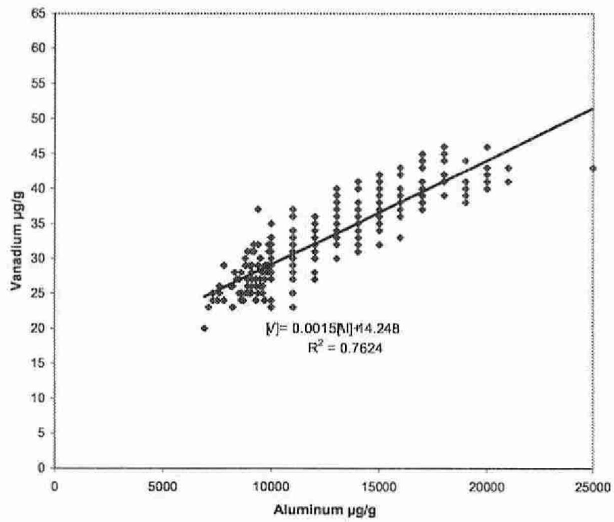


Fig. 10.4.6.38: V vs. Al, 5-10cm, Copper Cliff

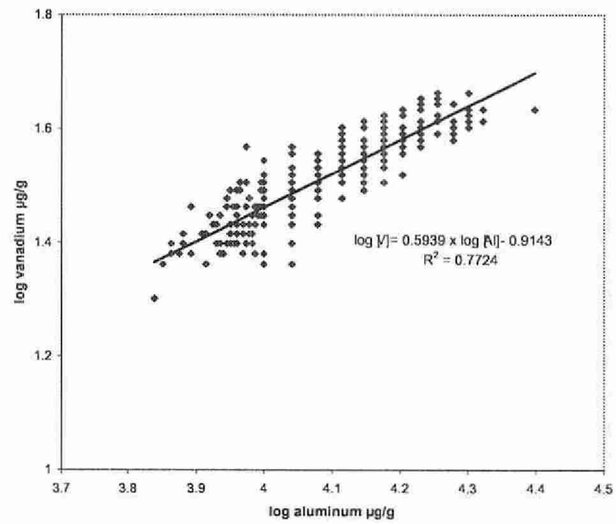


Fig. 10.4.6.38b: log V vs. log Al, 5-10cm, Copper Cliff

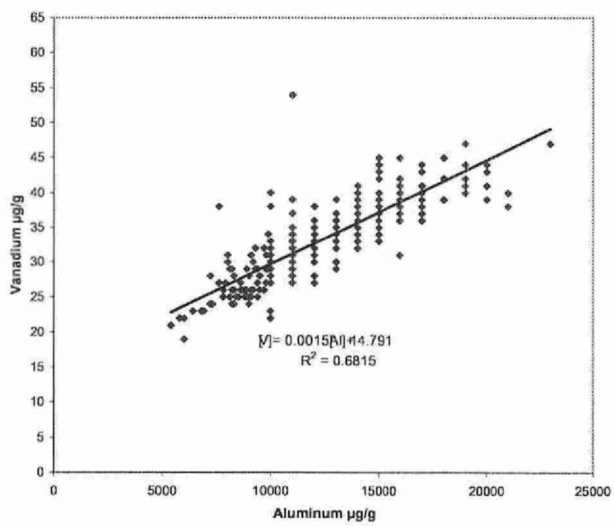


Fig. 10.4.6.39: V vs. Al, 10-20cm, Copper Cliff

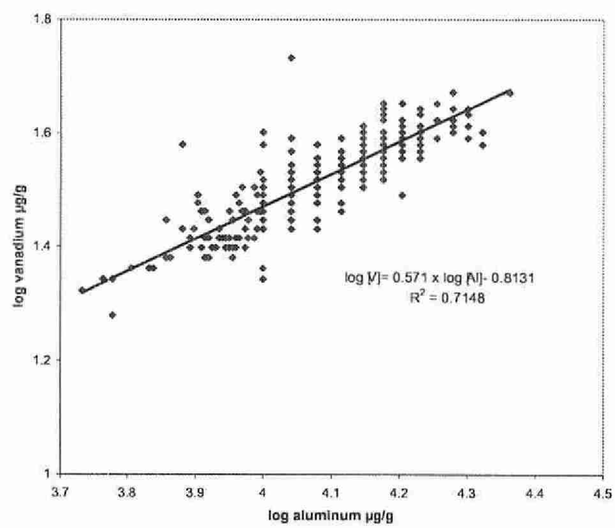


Fig. 10.4.6.39b: log V vs. log Al, 10-20cm, Copper Cliff

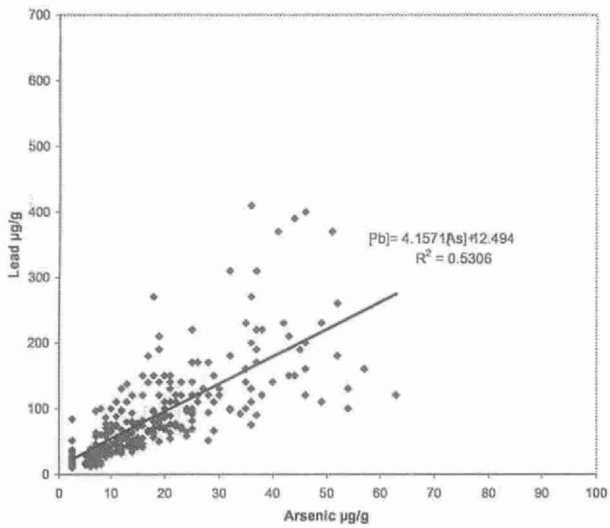


Fig. 10.4.6.40: Pb vs. As, 0-5cm, Copper Cliff

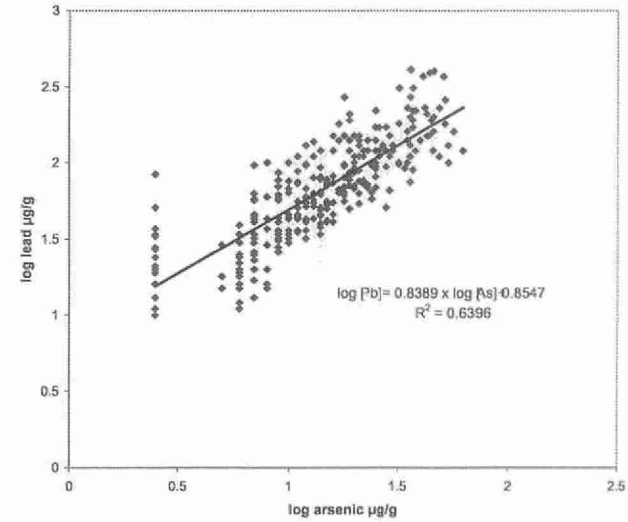


Fig. 10.4.6.40b: log Pb vs. log As, 0-5cm, Copper Cliff

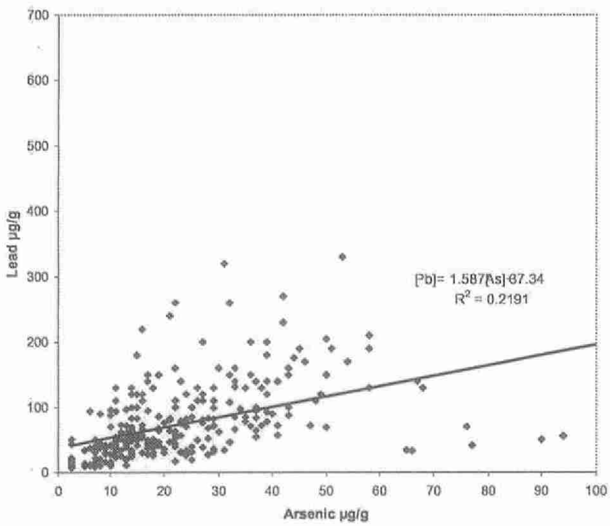


Fig. 10.4.6.41: Pb vs. As, 5-10cm, Copper Cliff

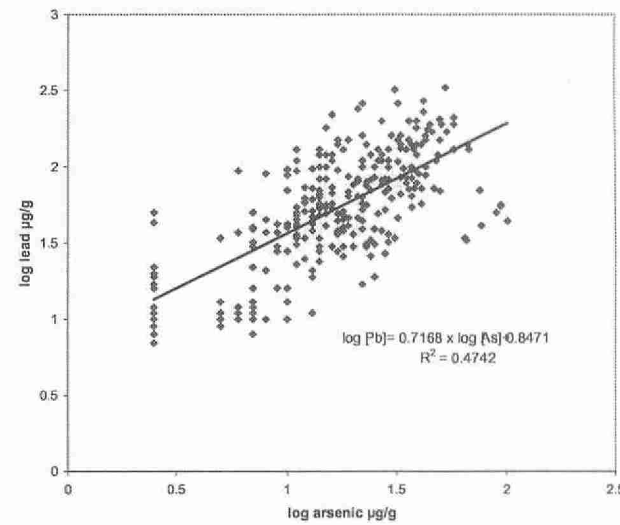


Fig. 10.4.6.41b: log Pb vs. log As, 5-10cm, Copper Cliff

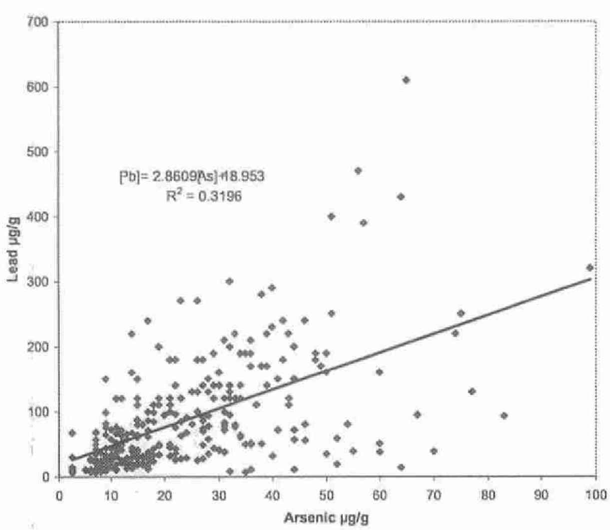


Fig. 10.4.6.42: Pb vs. As, 10-20cm, Copper Cliff

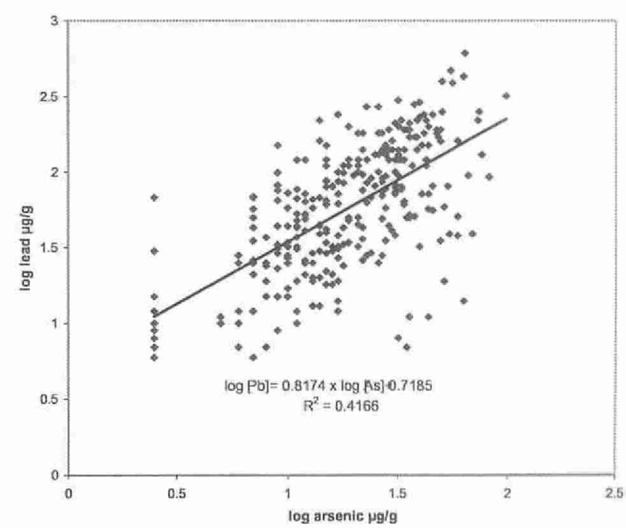


Fig. 10.4.6.42b: log Pb vs. log As, 10-20cm, Copper Cliff

Table 10.4.6.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.19*	*0.30*	*0.61*	*0.35*	*0.34*	*0.68*	*0.32*	*0.30*	*0.58*	*0.28*	*0.36*	*0.60*	*0.21*	*0.30*	*0.29*	*0.69*	***0.80***	*0.34*
Sb	0.17	1	*0.38*	*0.40*	*0.31*	*0.13*	*0.25*	*0.32*	*0.30*	*0.36*	*0.45*	*0.14*	*0.28*	*0.14*	*0.31*	*0.21*	*0.16*	*0.23*	*0.41*
As	0.31	0.42	1	*0.70*	***0.79***	*0.34*	*0.62*	***0.87***	***0.84***	***0.82***	*0.82*	*0.29*	*0.23*	*0.47*	***0.86***	*0.72*	*0.11*	*0.35*	***0.75***
Ba	0.61	0.47	0.65	1	*0.72*	*0.48*	***0.78***	*0.70*	*0.66*	***0.80***	*0.73*	*0.46*	*0.57*	*0.44*	*0.68*	*0.58*	*0.49*	*0.60*	***0.81***
Cd	0.35	0.24	0.74	0.65	1	*0.60*	*0.70*	***0.93***	***0.93***	***0.78***	*0.77*	*0.47*	*0.32*	*0.60*	***0.93***	***0.82***	*0.22*	*0.33*	***0.86***
Ca	0.12	0.02	0.22	0.23	0.51	1	*0.49*	*0.53*	*0.47*	*0.49*	*0.33*	***0.75***	*0.42*	*0.33*	*0.52*	*0.44*	*0.48*	*0.25*	*0.54*
Cr	0.59	0.16	0.60	0.67	0.69	0.25	1	*0.71*	*0.67*	***0.82***	*0.59*	*0.46*	*0.62*	*0.53*	*0.70*	*0.66*	*0.56*	***0.77***	*0.67*
Co	0.32	0.28	**0.84**	0.59	**0.90**	0.43	0.69	1	***0.97***	***0.84***	*0.82*	*0.45*	*0.30*	*0.60*	***0.99***	***0.87***	*0.19*	*0.37*	***0.85***
Cu	0.30	0.24	**0.78**	0.52	**0.86**	0.32	0.64	**0.94**	1	***0.79***	*0.78*	*0.40*	*0.23*	*0.63*	***0.97***	***0.88***	*0.16*	*0.34*	***0.80***
Fe	0.55	0.29	**0.82**	0.70	**0.79**	0.34	**0.79**	**0.87**	**0.78**	1	*0.76*	*0.50*	*0.48*	*0.50*	***0.81***	*0.71*	*0.35*	*0.62*	***0.76***
Pb	0.26	0.51	0.73	0.71	0.61	0.19	0.49	0.65	0.58	0.63	1	*0.28*	*0.29*	*0.46*	***0.80***	*0.69*	*0.16*	*0.37*	***0.86***
Mg	0.18	0.00	0.14	0.20	0.36	0.58	0.21	0.29	0.25	0.26	0.10	1	*0.46*	*0.30*	*0.42*	*0.35*	*0.35*	*0.35*	*0.45*
Mn	0.56	0.27	0.27	0.57	0.28	0.16	0.51	0.26	0.18	0.41	0.27	0.19	1	*0.14*	*0.26*	*0.21*	*0.68*	*0.70*	*0.40*
Mo	0.23	0.06	0.44	0.34	0.58	0.23	0.53	0.60	0.68	0.50	0.35	0.23	0.14	1	*0.61*	*0.61*	*0.14*	*0.23*	*0.52*
Ni	0.30	0.28	**0.85**	0.58	**0.90**	0.42	0.68	**0.99**	**0.94**	**0.85**	0.64	0.27	0.24	0.59	1	***0.87***	*0.19*	*0.34*	***0.83***
Se	0.25	0.16	0.65	0.41	0.72	0.30	0.56	**0.77**	**0.83**	0.63	0.48	0.24	0.14	0.66	**0.77**	1	*0.18*	*0.35*	*0.71*
Sr	0.65	0.15	0.15	0.51	0.25	0.32	0.49	0.22	0.15	0.34	0.16	0.21	0.71	0.13	0.21	0.15	1	*0.66*	*0.25*
V	**0.77**	0.19	0.37	0.55	0.29	0.00	0.71	0.36	0.32	0.59	0.33	0.07	0.65	0.21	0.34	0.30	0.65	1	*0.37*
Zn	0.36	0.42	0.71	**0.79**	**0.81**	0.45	0.64	**0.76**	0.68	0.74	**0.78**	0.37	0.40	0.43	**0.76**	0.53	0.31	0.36	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.6.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	0.18	0.41	**0.76**	0.44	0.61	**0.84**	0.45	0.35	**0.76**	0.28	0.65	0.69	0.10	0.39	0.26	**0.79**	**0.89**	0.46
Sb	0.07	1	0.54	0.45	0.52	0.26	0.32	0.50	0.46	0.41	0.52	0.13	0.28	0.06	0.47	0.34	0.23	0.21	0.52
As	0.30	0.50	1	0.68	0.70	0.41	0.57	**0.88**	**0.79**	0.73	0.67	0.21	0.35	0.21	**0.90**	0.63	0.27	0.38	**0.77**
Ba	0.62	0.34	0.46	1	0.63	0.54	**0.84**	0.70	0.60	**0.85**	0.65	0.60	0.70	0.15	0.65	0.46	0.61	0.73	**0.81**
Cd	0.36	0.37	0.65	0.49	1	0.60	0.61	**0.82**	**0.82**	0.66	0.55	0.33	0.39	0.17	**0.81**	0.64	0.34	0.36	**0.76**
Ca	0.41	0.13	0.36	0.32	0.54	1	0.63	0.56	0.46	0.61	0.22	0.61	0.52	0.13	0.53	0.38	0.60	0.52	0.45
Cr	**0.75**	0.20	0.47	0.67	0.67	0.45	1	0.64	0.54	**0.86**	0.46	0.72	0.74	0.13	0.58	0.46	0.70	**0.85**	0.67
Co	0.39	0.39	**0.81**	0.55	**0.80**	0.57	0.60	1	**0.93**	**0.78**	0.69	0.33	0.40	0.23	**0.96**	0.74	0.30	0.40	**0.84**
Cu	0.33	0.30	0.67	0.48	**0.79**	0.46	0.53	**0.91**	1	0.67	0.67	0.26	0.31	0.23	**0.91**	**0.79**	0.23	0.30	**0.79**
Fe	0.70	0.27	0.59	0.73	0.60	0.49	**0.79**	0.74	0.66	1	0.62	0.64	0.68	0.19	0.71	0.53	0.61	**0.79**	**0.75**
Pb	0.19	0.48	0.47	0.57	0.50	0.18	0.39	0.59	0.55	0.54	1	0.21	0.37	0.11	0.64	0.52	0.25	0.33	**0.82**
Mg	0.52	-0.01	0.04	0.35	0.15	0.48	0.46	0.14	0.08	0.45	0.03	1	0.63	0.07	0.26	0.18	0.53	0.70	0.36
Mn	0.64	0.17	0.28	0.62	0.33	0.41	0.65	0.39	0.29	0.63	0.40	0.45	1	0.08	0.33	0.20	0.71	**0.77**	0.53
Mo	0.07	0.04	0.16	0.08	0.18	0.17	0.11	0.24	0.23	0.21	0.08	0.02	0.07	1	0.26	0.24	0.04	0.13	0.18
Ni	0.36	0.31	**0.77**	0.48	**0.80**	0.56	0.57	**0.96**	**0.89**	0.69	0.51	0.11	0.33	0.28	1	0.74	0.25	0.34	**0.80**
Se	0.22	0.29	0.60	0.39	0.63	0.34	0.44	0.74	**0.78**	0.55	0.44	0.08	0.16	0.31	0.72	1	0.13	0.25	0.58
Sr	0.71	0.14	0.22	0.63	0.32	0.42	0.62	0.30	0.23	0.61	0.26	0.37	0.71	0.01	0.26	0.14	1	**0.84**	0.39
V	**0.87**	0.11	0.29	0.63	0.33	0.35	**0.79**	0.40	0.31	**0.77**	0.29	0.52	**0.75**	0.12	0.36	0.26	**0.79**	1	0.46
Zn	0.41	0.41	0.55	0.74	0.72	0.39	0.60	0.74	0.73	0.69	**0.76**	0.14	0.55	0.14	0.69	0.51	0.47	0.44	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.6.3: Pearsons and Spearmans Correlations for 10 to 20 cm Urban Soil in Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.20*	*0.28*	*0.72*	*0.23*	*0.63*	***0.85***	*0.42*	*0.34*	***0.76***	*0.31*	*0.70*	*0.68*	*0.03*	*0.32*	*0.23*	***0.77***	***0.85***	*0.40*
Sb	0.14	1	*0.67*	*0.55*	*0.38*	*0.25*	*0.30*	*0.51*	*0.43*	*0.42*	*0.59*	*0.11*	*0.40*	*-0.04*	*0.46*	*0.30*	*0.32*	*0.19*	*0.56*
As	0.23	0.55	1	*0.61*	*0.48*	*0.32*	*0.41*	***0.76***	*0.67*	*0.53*	*0.61*	*0.05*	*0.39*	*-0.03*	*0.74*	*0.54*	*0.29*	*0.24*	*0.68*
Ba	0.50	0.38	0.39	1	*0.44*	*0.57*	***0.82***	*0.66*	*0.57*	***0.82***	*0.68*	*0.59*	***0.79***	*-0.01*	*0.57*	*0.40*	*0.73*	*0.70*	***0.79***
Cd	0.20	0.34	0.42	0.43	1	*0.48*	*0.35*	*0.69*	*0.73*	*0.46*	*0.47*	*0.17*	*0.30*	*0.09*	*0.69*	*0.52*	*0.33*	*0.18*	*0.60*
Ca	0.58	0.16	0.24	0.40	0.44	1	*0.63*	*0.48*	*0.45*	*0.56*	*0.24*	*0.55*	*0.52*	*0.01*	*0.51*	*0.37*	*0.65*	*0.57*	*0.42*
Cr	**0.80**	0.21	0.33	0.57	0.32	0.54	1	*0.59*	*0.50*	***0.84***	*0.43*	***0.76***	***0.79***	*0.06*	*0.48*	*0.37*	***0.75***	***0.88***	*0.57*
Co	0.39	0.41	0.66	0.46	0.72	0.46	0.56	1	***0.93***	*0.72*	*0.72*	*0.25*	*0.49*	*-0.02*	***0.93***	*0.68*	*0.41*	*0.40*	***0.83***
Cu	0.30	0.31	0.52	0.36	**0.78**	0.45	0.46	**0.90**	1	*0.64*	*0.68*	*0.17*	*0.38*	*0.00*	***0.90***	*0.71*	*0.34*	*0.31*	***0.78***
Fe	0.60	0.29	0.40	0.52	0.39	0.45	**0.80**	0.61	0.56	1	*0.60*	*0.70*	*0.74*	*0.00*	*0.57*	*0.43*	*0.66*	***0.77***	*0.68*
Pb	0.21	0.58	0.57	0.55	0.53	0.15	0.31	0.61	0.52	0.43	1	*0.21*	*0.50*	*-0.06*	*0.61*	*0.46*	*0.37*	*0.32*	***0.84***
Mg	0.67	0.05	-0.01	0.41	0.08	0.55	0.67	0.18	0.09	0.50	0.08	1	*0.71*	*0.02*	*0.12*	*0.09*	*0.60*	***0.76***	*0.31*
Mn	0.62	0.35	0.39	0.66	0.31	0.50	0.69	0.45	0.30	0.55	0.47	0.62	1	*0.04*	*0.35*	*0.17*	***0.77***	***0.79***	*0.59*
Mo	0.03	-0.07	-0.05	0.06	0.11	-0.01	0.05	-0.03	0.03	-0.03	-0.03	0.07	0.03	1	*-0.02*	*0.01*	*0.05*	*0.05*	*-0.03*
Ni	0.29	0.33	0.62	0.37	0.68	0.47	0.43	**0.92**	**0.85**	0.46	0.48	0.05	0.32	-0.03	1	*0.69*	*0.32*	*0.29*	***0.76***
Se	0.19	0.25	0.39	0.25	0.57	0.35	0.38	0.65	0.72	0.44	0.36	0.03	0.13	0.03	0.64	1	*0.19*	*0.20*	*0.54*
Sr	0.70	0.26	0.25	0.57	0.35	0.61	0.66	0.39	0.32	0.53	0.32	0.55	**0.75**	0.07	0.31	0.20	1	***0.83***	*0.47*
V	**0.83**	0.14	0.20	0.47	0.17	0.51	**0.89**	0.40	0.29	0.72	0.23	0.71	0.72	0.03	0.28	0.23	**0.76**	1	*0.42*
Zn	0.28	0.52	0.56	0.69	0.66	0.31	0.42	0.68	0.59	0.48	**0.79**	0.16	0.55	0.00	0.59	0.40	0.44	0.30	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.7 Play Sand

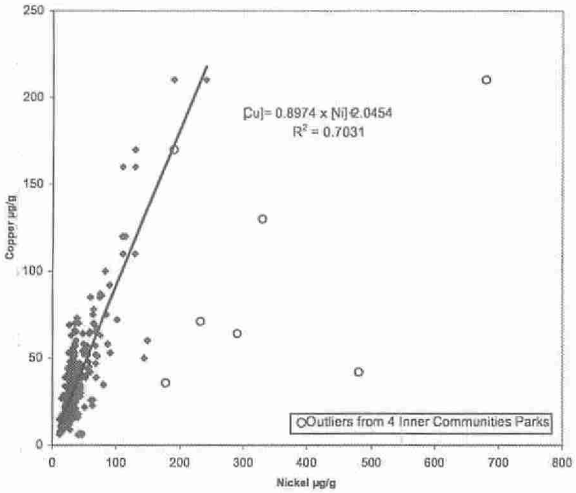


Fig. 10.4.7.1: Cu vs Ni, 0-5 cm, Play Sand

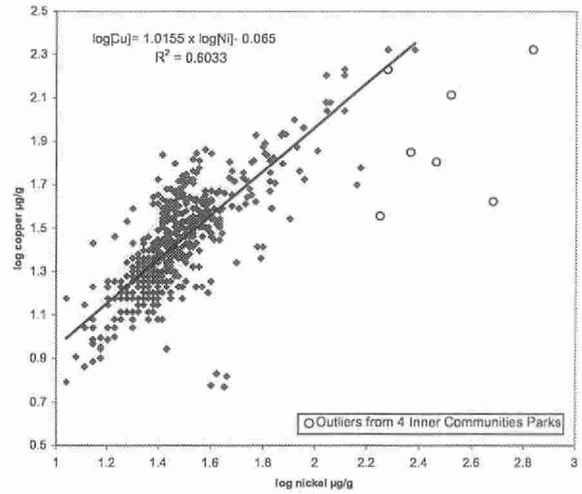


Fig. 10.4.7.1b: log Cu vs log Ni, 0-5 cm, Play Sand

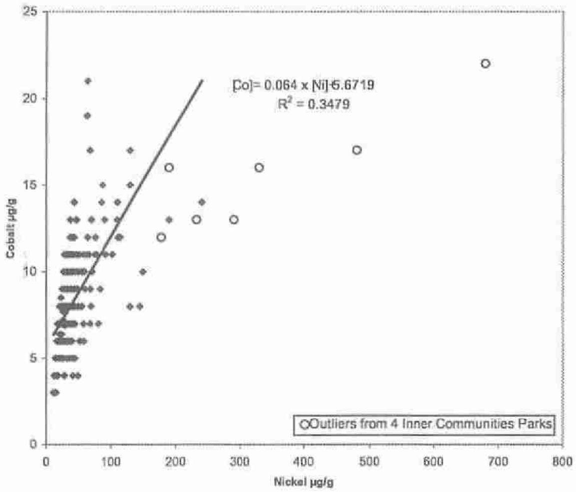


Fig. 10.4.7.2: Co vs Ni, 0-5 cm, Play Sand

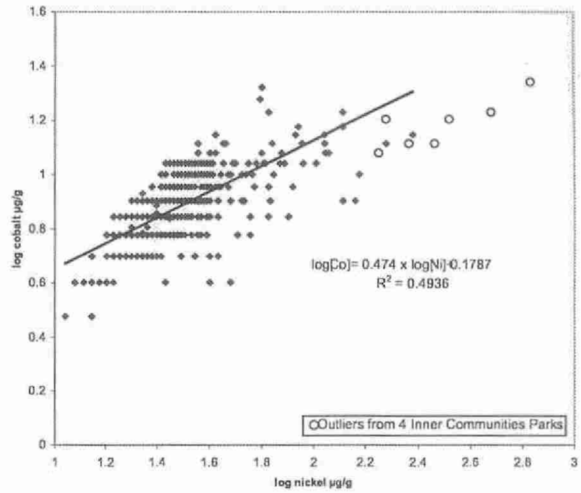


Fig. 10.4.7.2b: log Co vs log Ni, 0-5 cm, Play Sand

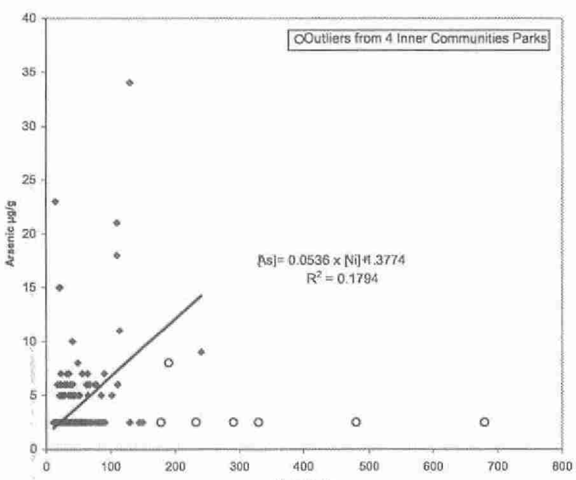


Fig. 10.4.7.3: As vs Ni, 0-5 cm, Play Sand

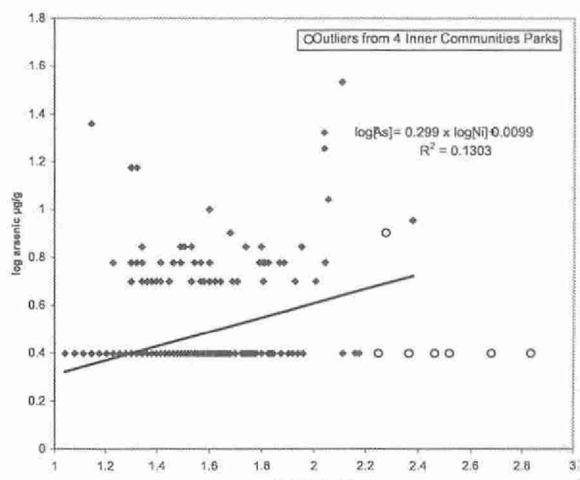


Fig. 10.4.7.3b: log As vs log Ni, 0-5 cm, Play Sand

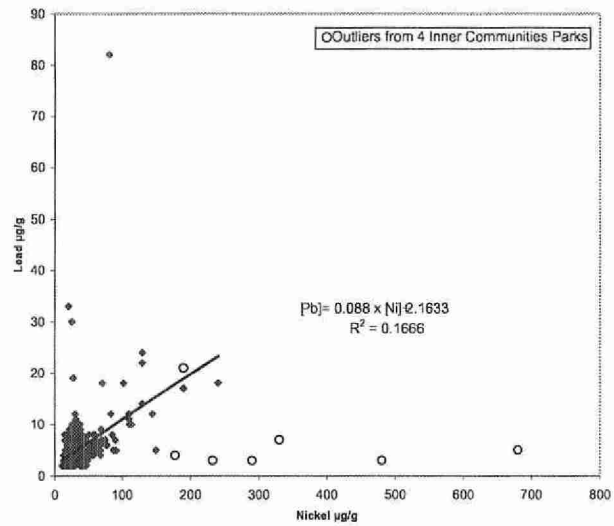


Fig. 10.4.7.4: Pb vs Ni, 0-5 cm, Play Sand

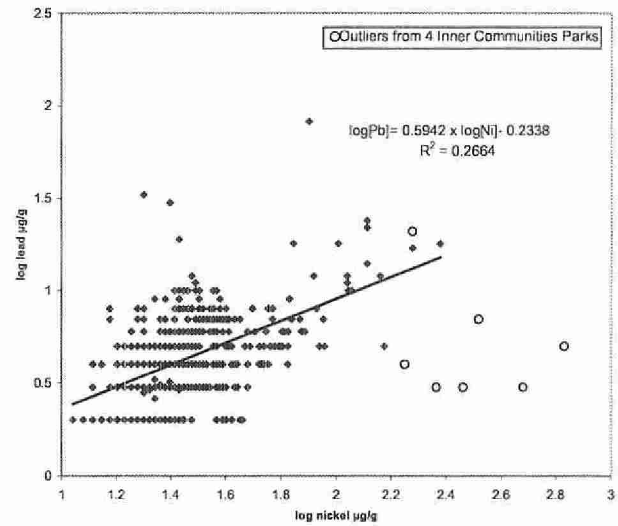


Fig. 10.4.7.4b: log Pb vs log Ni, 0-5 cm, Play Sand

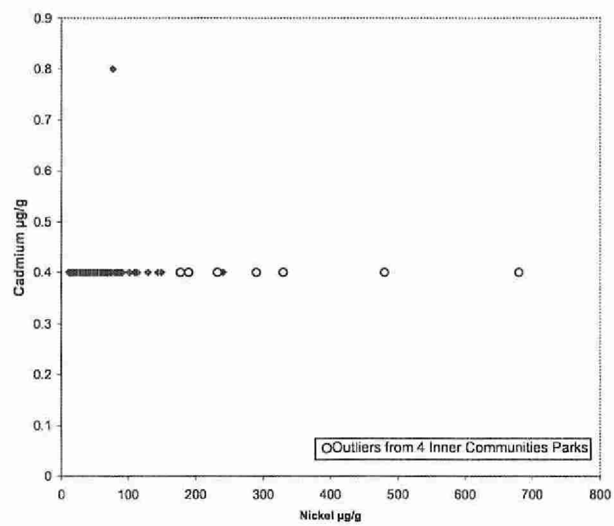


Fig. 10.4.7.5: Cd vs Ni, 0-5 cm, Play Sand

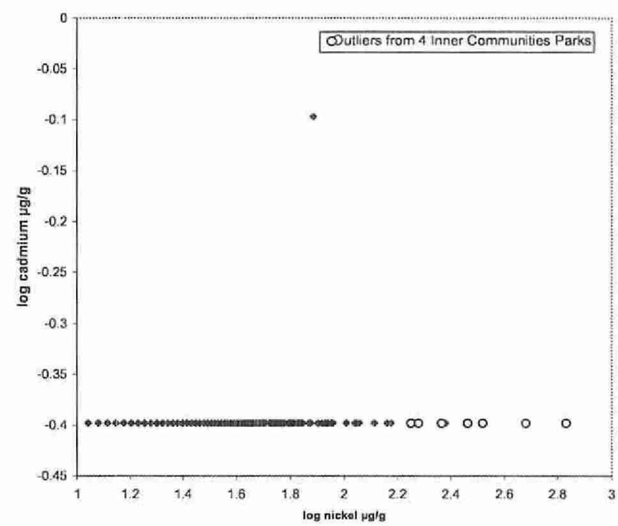


Fig. 10.4.7.5b: log Cd vs log Ni, 0-5 cm, Play Sand

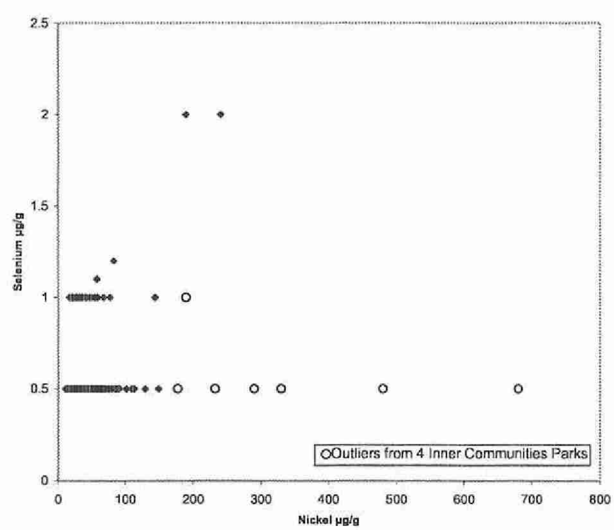


Fig. 10.4.7.6: Se vs Ni, 0-5 cm, Play Sand

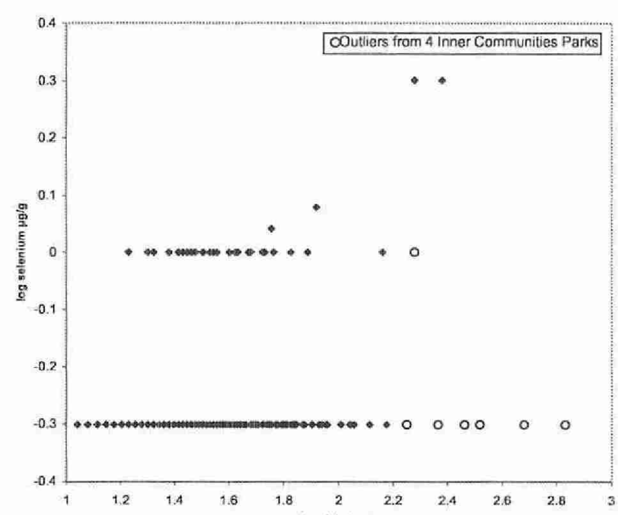


Fig. 10.4.7.6b: log Se vs log Ni, 0-5 cm, Play Sand

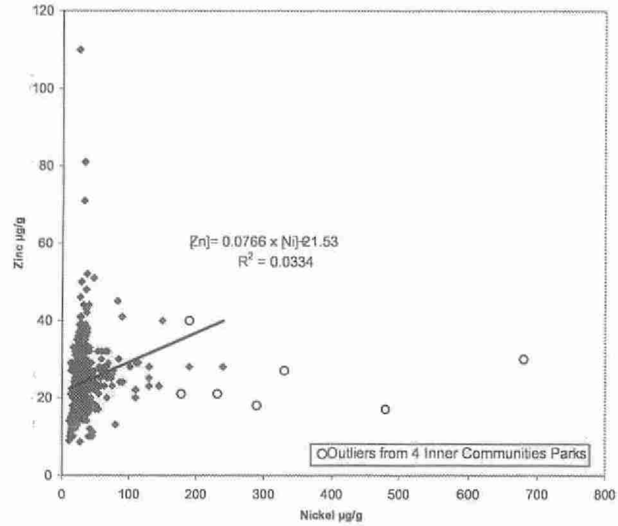


Fig. 10.4.7.7: Zn vs Ni, 0-5 cm, Play Sand

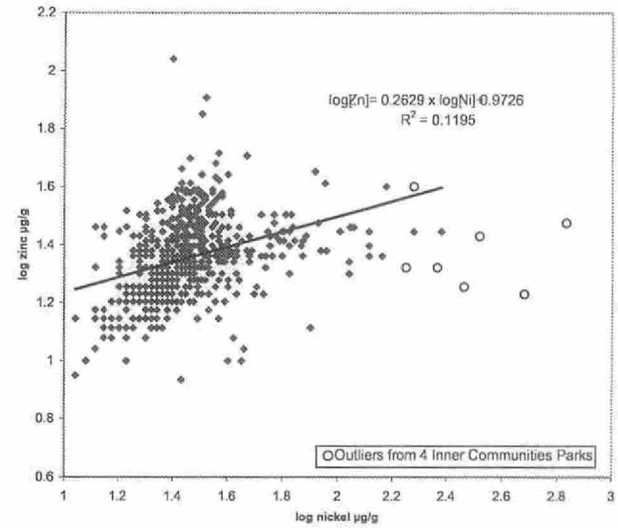


Fig. 10.4.7.7b: log Zn vs log Ni, 0-5 cm, Play Sand

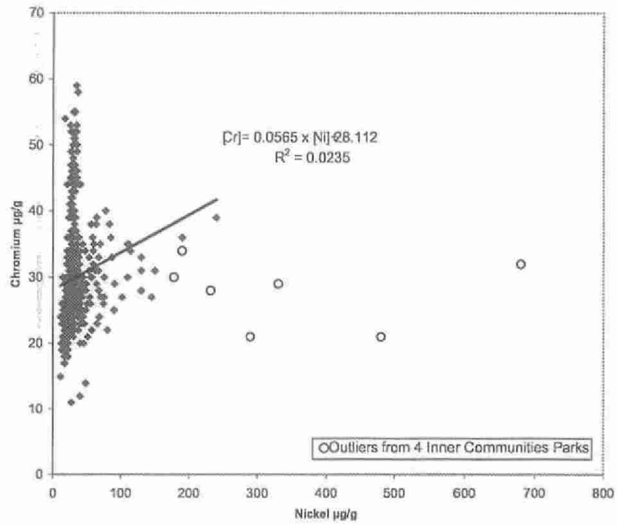


Fig. 10.4.7.8: Cr vs Ni, 0-5 cm, Play Sand

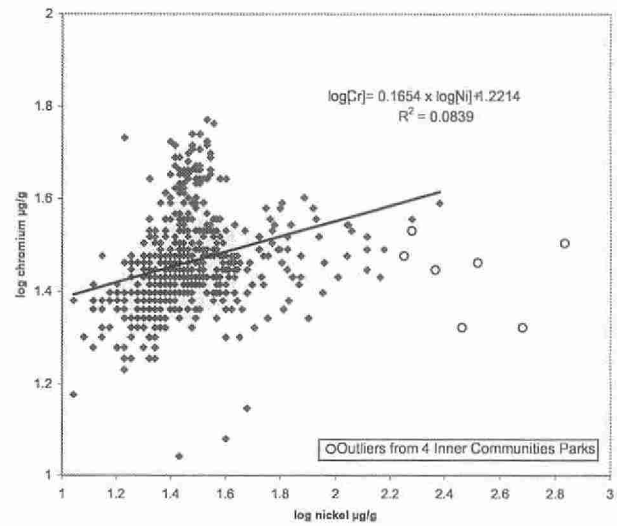


Fig. 10.4.7.8b: log Cr vs log Ni, 0-5 cm, Play Sand

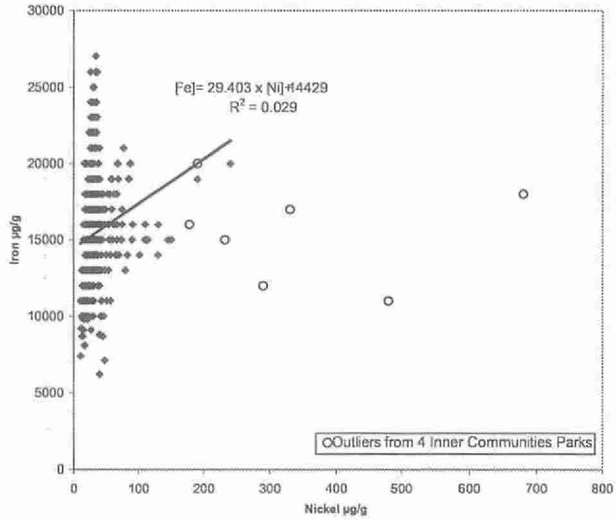


Fig. 10.4.7.9: Fe vs Ni, 0-5 cm, Play Sand

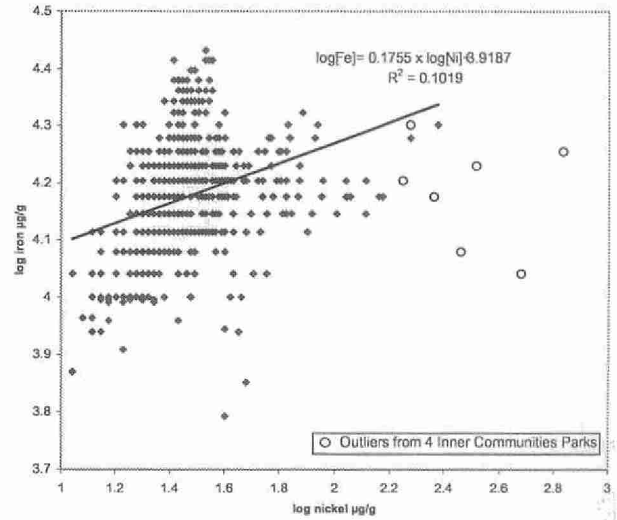


Fig. 10.4.7.9b: log Fe vs log Ni, 0-5 cm, Play Sand

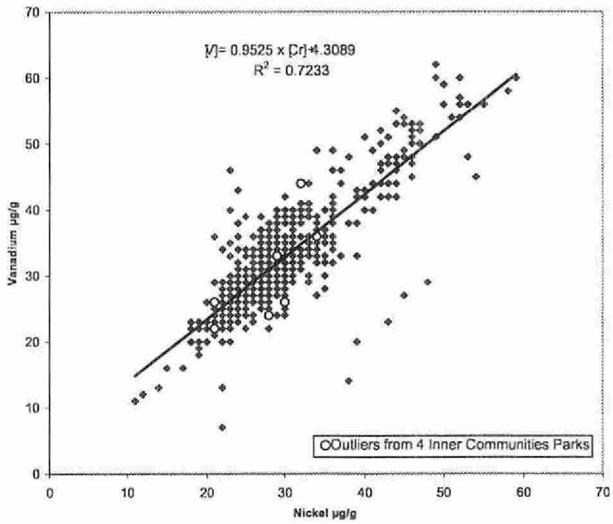


Fig. 10.4.7.10: V vs Cr, 0-5 cm, Play Sand

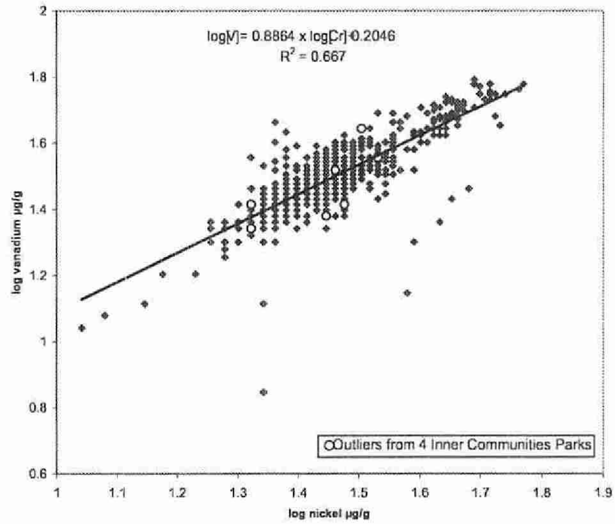


Fig. 10.4.7.10b: log V vs log Cr, 0-5 cm, Play Sand

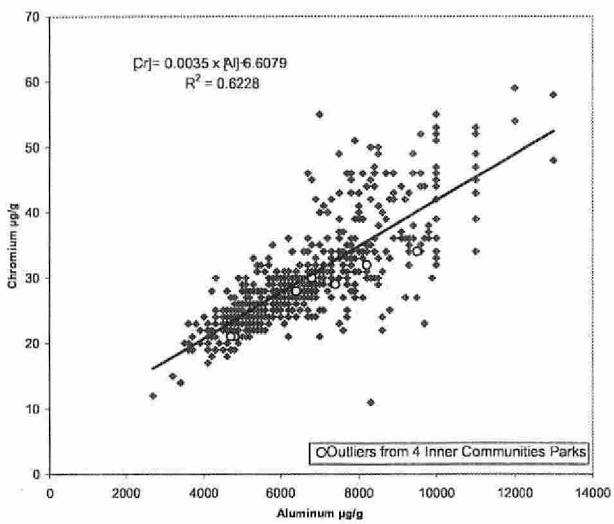


Fig. 10.4.7.11: Cr vs Al, 0-5 cm, Play Sand

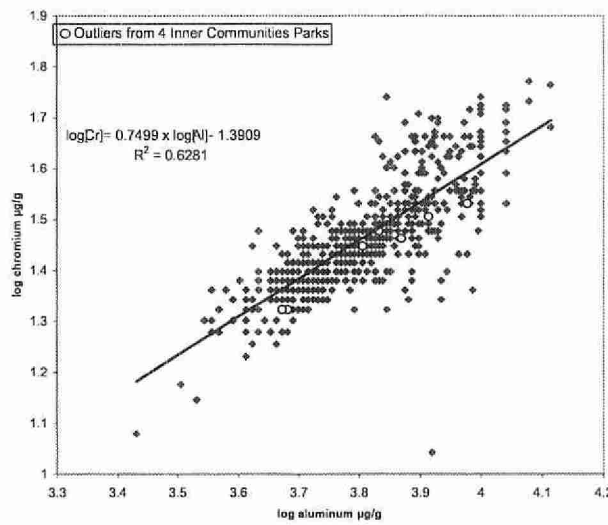


Fig. 10.4.7.11b: log Cr vs log Al, 0-5 cm, Play Sand

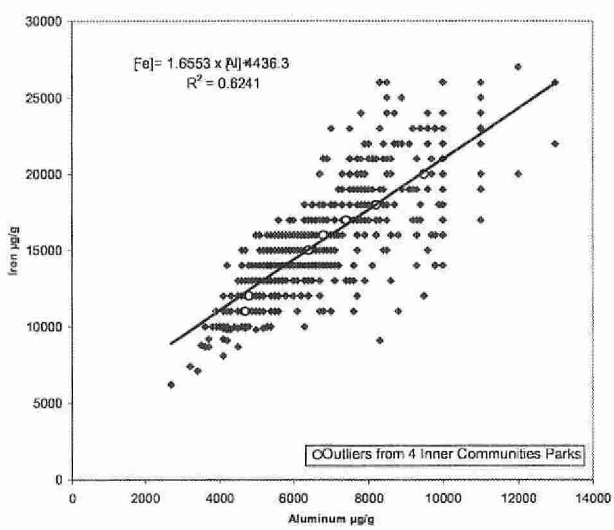


Fig. 10.4.7.12: Fe vs Al, 0-5 cm, Play Sand

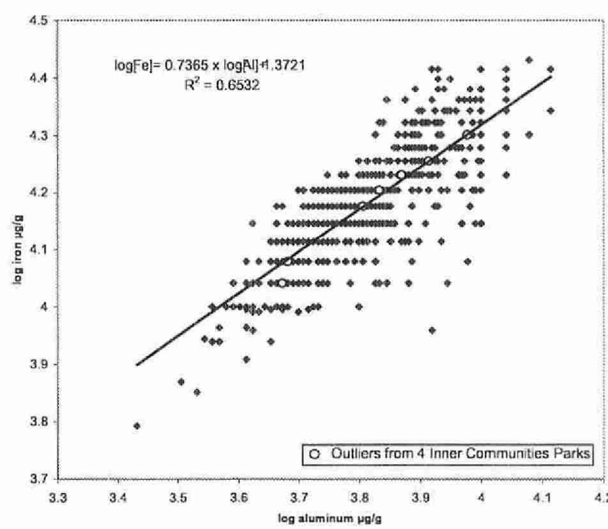


Fig. 10.4.7.12b: log Fe vs log Al, 0-5 cm, Play Sand

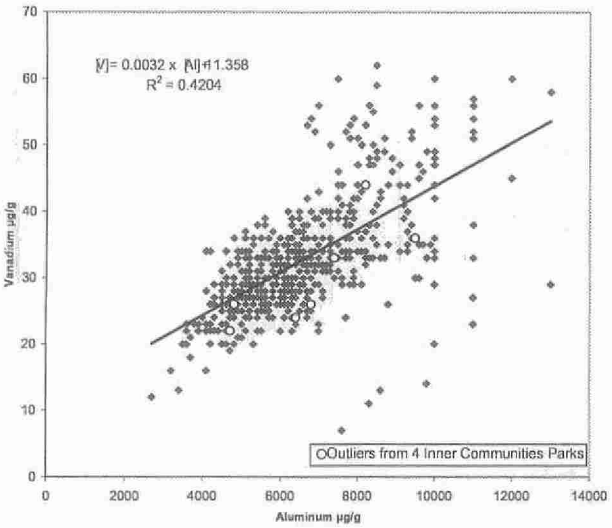


Fig. 10.4.7.13: V vs Al, 0-5 cm, Play Sand

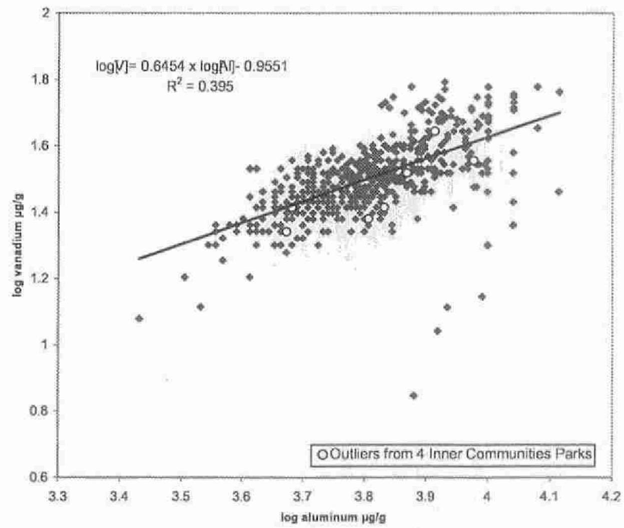


Fig. 10.4.7.13b: log V vs log Al, 0-5 cm, Play Sand

Table 10.4.7.1: Pearsons and Spearmans Correlations for Play Sand in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.02*	*-0.01*	***0.80***	*0.05*	*0.63*	***0.80***	*0.54*	*0.64*	***0.80***	*0.54*	***0.75***	***0.85***	*0.02*	*0.43*	*0.03*	***0.80***	*0.67*	*0.62*
Sb	0.01	1	*0.02*	*0.00*	*0.40*	*0.00*	*0.00*	*0.00*	*-0.04*	*-0.01*	*-0.02*	*-0.01*	*0.01*	*0.14*	*-0.05*	*0.04*	*0.02*	*0.01*	*-0.03*
As	-0.06	-0.01	1	*0.09*	*0.12*	*-0.04*	*0.01*	*0.20*	*0.23*	*-0.02*	*0.22*	*-0.09*	*-0.03*	*0.30*	*0.23*	*0.07*	*0.01*	*-0.04*	*0.12*
Ba	**0.83**	0.01	0.00	1	*0.03*	*0.45*	*0.63*	*0.54*	*0.65*	*0.66*	*0.45*	*0.55*	*0.72*	*0.05*	*0.46*	*0.08*	*0.64*	*0.58*	*0.54*
Cd	0.05	0.14	0.05	0.01	1	*0.05*	*0.06*	*0.06*	*0.07*	*0.06*	*0.04*	*0.07*	*0.05*	*0.37*	*0.07*	*0.15*	*0.04*	*0.05*	*0.03*
Ca	0.55	0.02	-0.07	0.44	0.04	1	*0.45*	*0.22*	*0.30*	*0.52*	*0.33*	*0.56*	*0.56*	*-0.02*	*0.16*	*0.03*	***0.76***	*0.44*	*0.36*
Cr	**0.79**	-0.02	-0.02	0.66	0.06	0.32	1	*0.58*	*0.65*	***0.85***	*0.48*	***0.77***	***0.83***	*0.10*	*0.43*	*0.05*	*0.58*	***0.77***	*0.69*
Co	0.43	-0.01	0.28	0.40	0.06	0.12	0.43	1	***0.76***	*0.65*	*0.50*	*0.58*	*0.62*	*0.16*	*0.72*	*0.01*	*0.35*	*0.52*	*0.53*
Cu	0.44	-0.03	0.50	0.46	0.10	0.22	0.41	0.63	1	*0.70*	*0.66*	*0.61*	*0.67*	*0.16*	***0.77***	*0.12*	*0.41*	*0.55*	*0.68*
Fe	**0.79**	0.00	-0.05	0.64	0.07	0.37	**0.87**	0.52	0.44	1	*0.54*	***0.84***	***0.91***	*0.06*	*0.42*	*0.00*	*0.60*	***0.89***	*0.73*
Pb	0.28	-0.02	0.24	0.17	0.01	0.25	0.17	0.26	0.41	0.20	1	*0.42*	*0.58*	*0.18*	*0.47*	*0.06*	*0.40*	*0.44*	*0.71*
Mg	0.72	0.02	-0.14	0.56	0.11	0.49	0.73	0.46	0.38	**0.83**	0.16	1	***0.83***	*-0.03*	*0.31*	*-0.02*	*0.50*	*0.70*	*0.64*
Mn	**0.83**	0.01	-0.09	**0.76**	0.04	0.44	**0.86**	0.47	0.42	**0.90**	0.22	**0.80**	1	*-0.01*	*0.39*	*0.03*	*0.66*	***0.83***	*0.72*
Mo	0.06	0.02	0.44	0.00	0.17	-0.01	0.12	0.18	0.36	0.03	0.35	0.02	-0.02	1	*0.16*	*0.10*	*0.01*	*0.03*	*0.05*
Ni	0.22	-0.03	0.42	0.22	0.09	0.15	0.15	0.59	**0.84**	0.17	0.41	0.13	0.13	0.29	1	*0.13*	*0.29*	*0.31*	*0.42*
Se	0.09	0.00	0.06	0.14	0.13	0.09	0.05	0.06	0.35	0.01	0.09	-0.02	0.02	0.12	0.38	1	*0.05*	*0.02*	*0.04*
Sr	**0.80**	0.02	-0.03	0.66	0.03	0.67	0.55	0.27	0.28	0.58	0.19	0.48	0.63	0.01	0.16	0.08	1	*0.50*	*0.42*
V	0.65	0.00	-0.08	0.55	0.05	0.26	**0.85**	0.40	0.30	**0.91**	0.09	0.69	**0.83**	0.05	0.06	-0.02	0.47	1	*0.62*
Zn	0.56	-0.01	0.01	0.49	0.01	0.25	0.60	0.37	0.37	0.59	0.32	0.56	0.60	0.33	0.18	0.03	0.37	0.53	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.4.8 Beach Sand

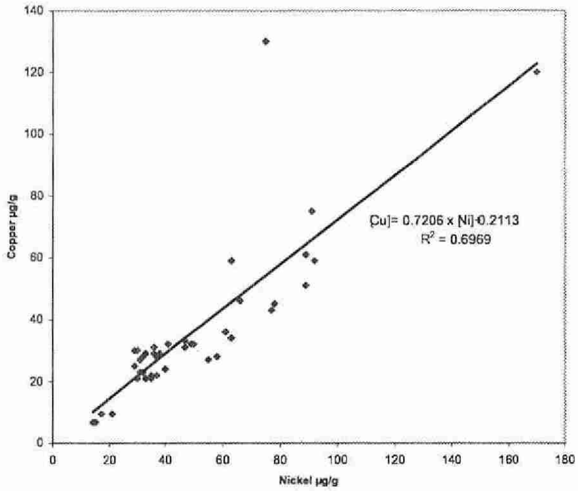


Fig. 10.4.8.1: Cu vs. Ni, 0-5 cm, Beach Sand

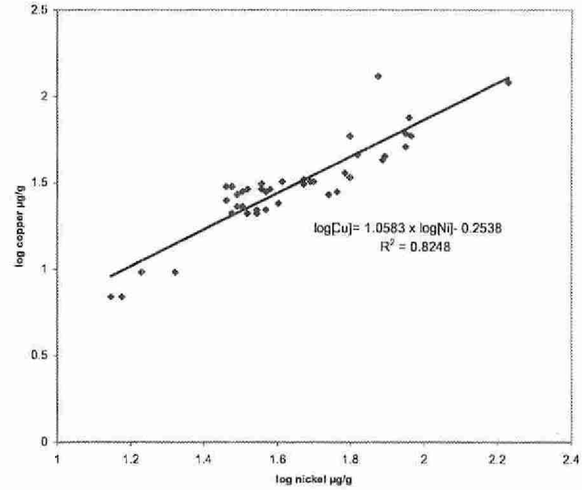


Fig. 10.4.8.1b: log Cu vs. log Ni, 0-5 cm, Beach Sand

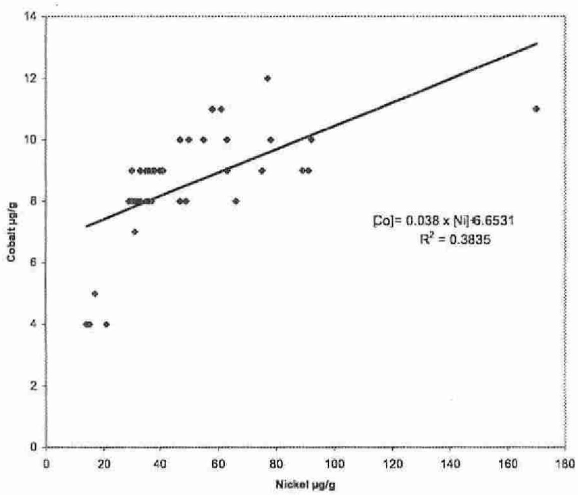


Fig. 10.4.8.2: Co vs. Ni, 0-5 cm, Beach Sand

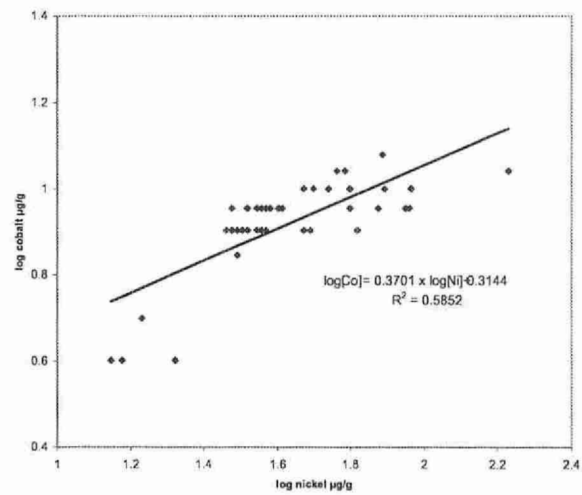


Fig. 10.4.8.2b: log Co vs. log Ni, 0-5 cm, Beach Sand

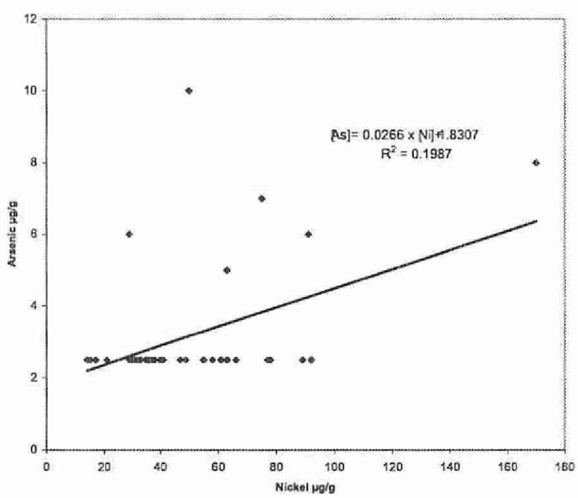


Fig. 10.4.8.3: As vs. Ni, 0-5 cm, Beach Sand

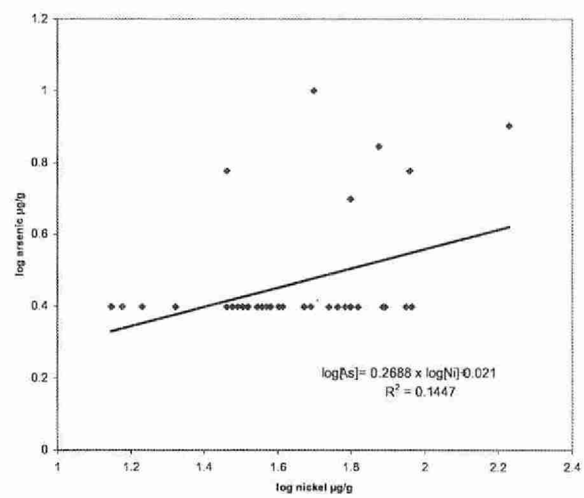


Fig. 10.4.8.3b: log As vs. log Ni, 0-5 cm, Beach Sand

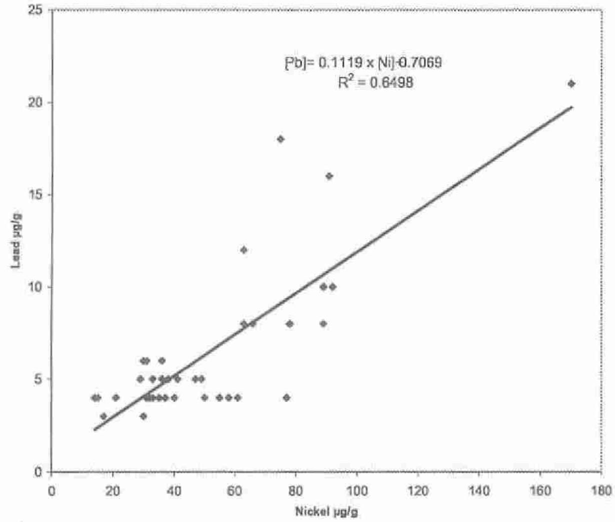


Fig. 10.4.8.4: Pb vs. Ni, 0-5 cm, Beach Sand

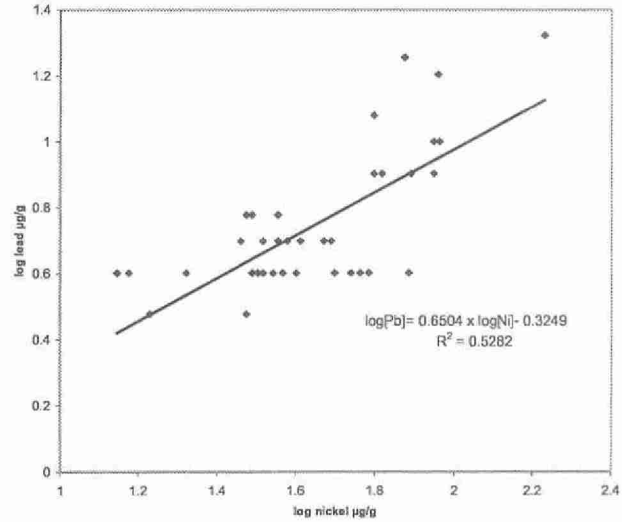


Fig. 10.4.8.4b: log Pb vs. log Ni, 0-5 cm, Beach Sand

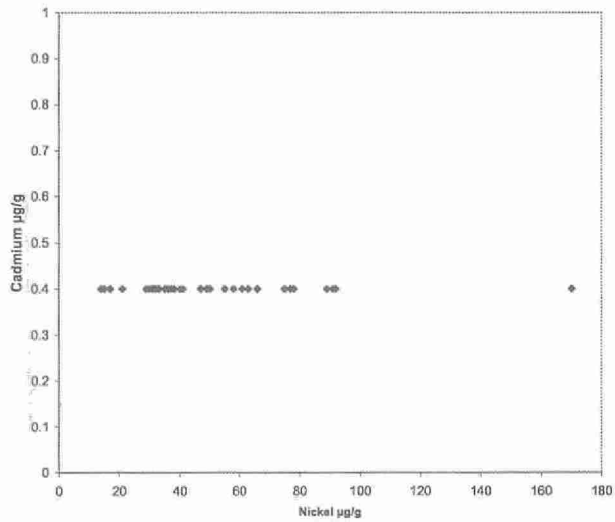


Fig. 10.4.8.5: Cd vs. Ni, 0-5 cm, Beach Sand

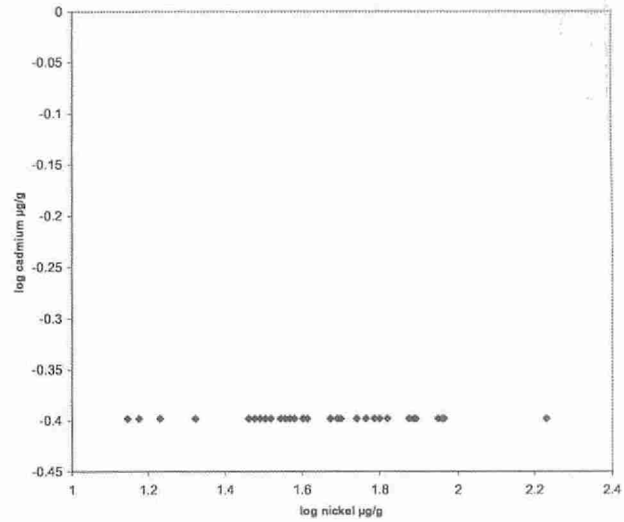


Fig. 10.4.8.5b: log Cd vs. log Ni, 0-5 cm, Beach Sand

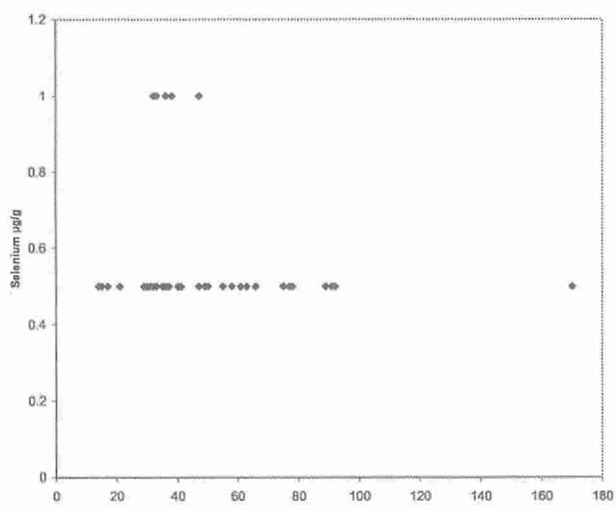


Fig. 10.4.8.6: Se vs. Ni, 0-5 cm, Beach Sand

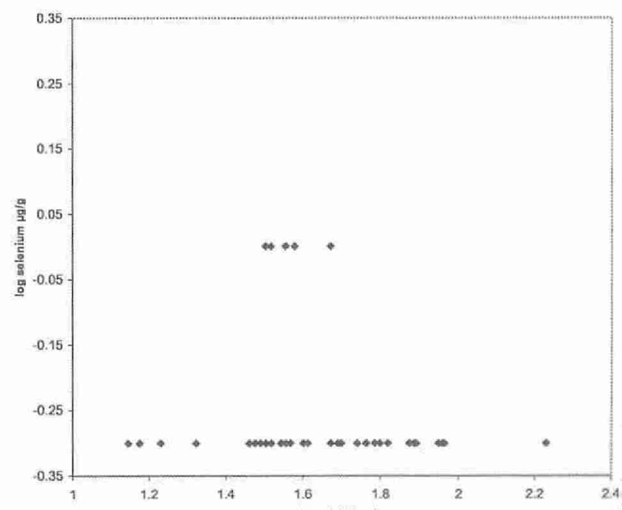


Fig. 10.4.8.6b: log Se vs. log Ni, 0-5 cm, Beach Sand

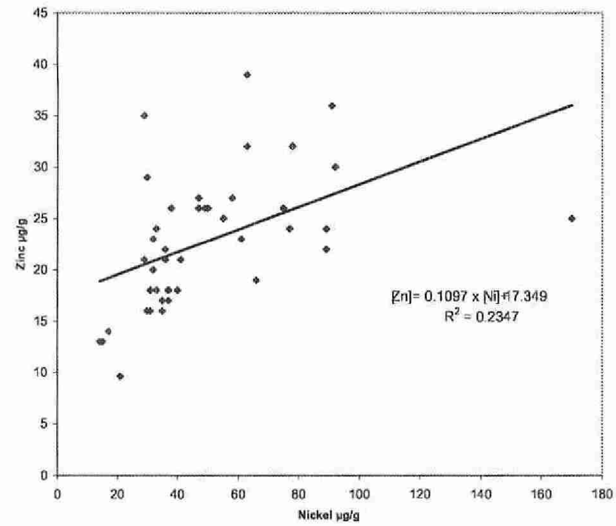


Fig. 10.4.8.7: Zn vs. Ni, 0-5 cm, Beach Sand

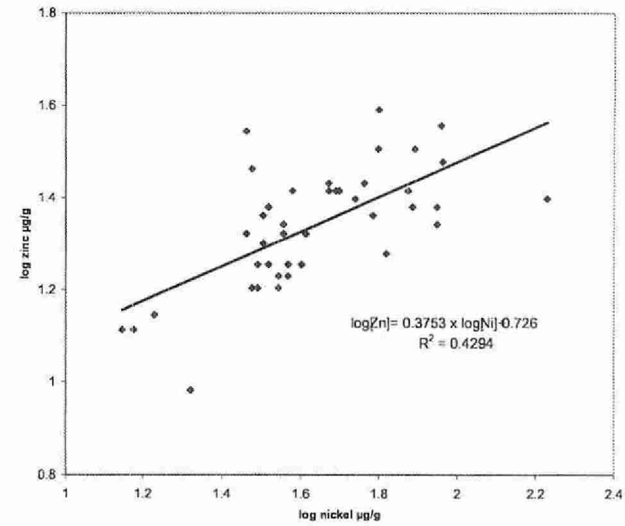


Fig. 10.4.8.7b: log Zn vs. log Ni, 0-5 cm, Beach Sand

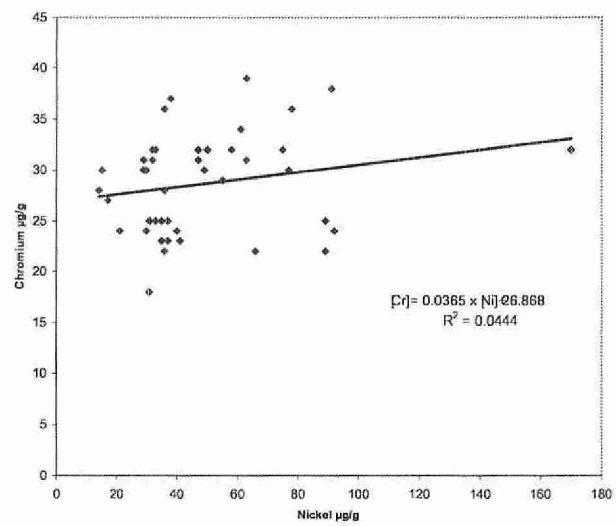


Fig. 10.4.8.8: Cr vs. Ni, 0-5 cm, Beach Sand

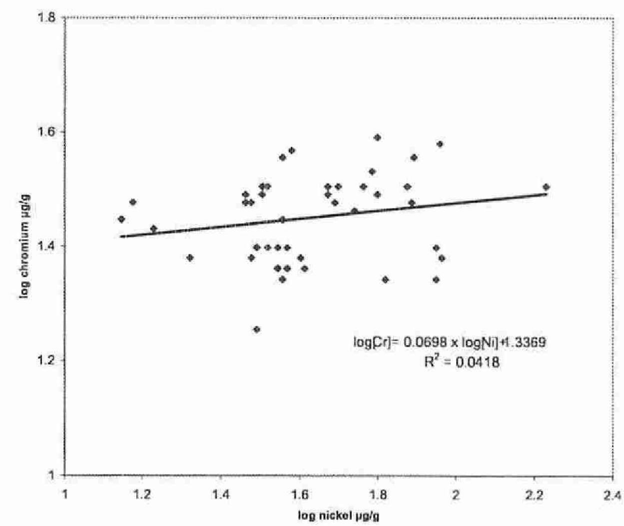


Fig. 10.4.8.8b: log Cr vs. log Ni, 0-5 cm, Beach Sand

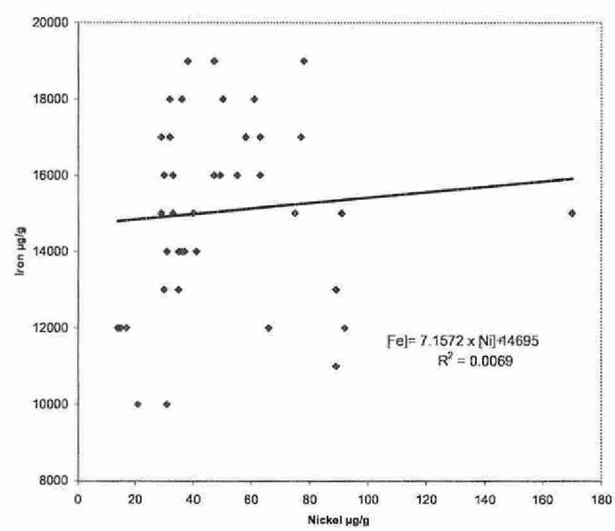


Fig. 10.4.8.9: Fe vs. Ni, 0-5 cm, Beach Sand

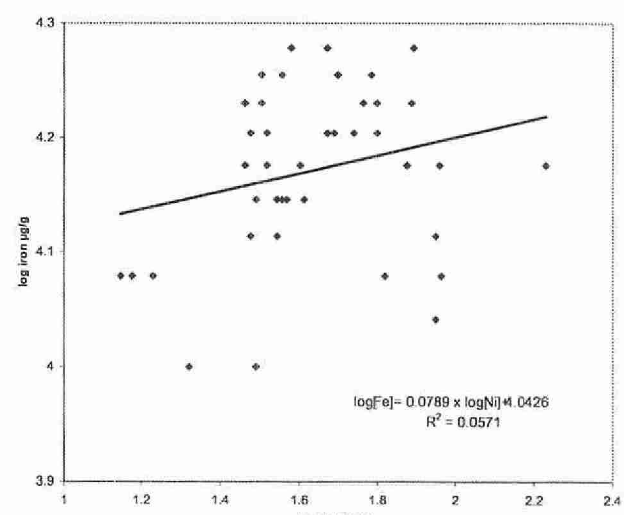


Fig. 10.4.8.9b: log Fe vs. log Ni, 0-5 cm, Beach Sand

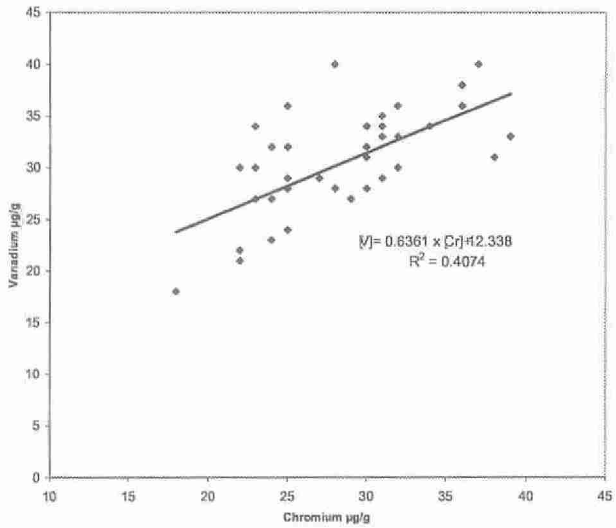


Fig. 10.4.8.10: V vs. Cr, 0-5 cm, Beach Sand

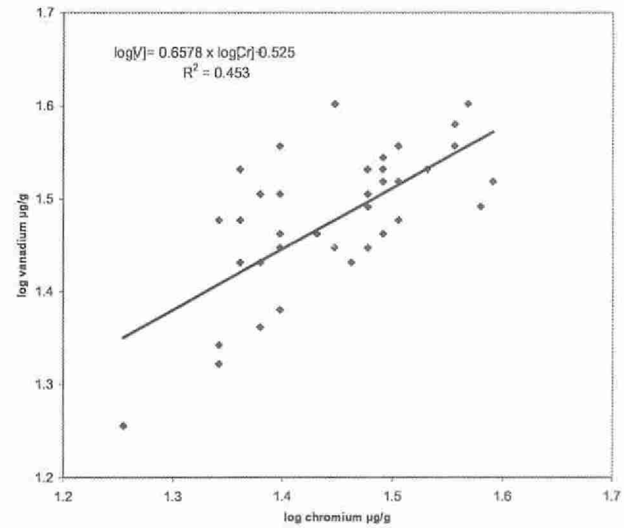


Fig. 10.4.8.10b: log V vs. log Cr, 0-5 cm, Beach Sand

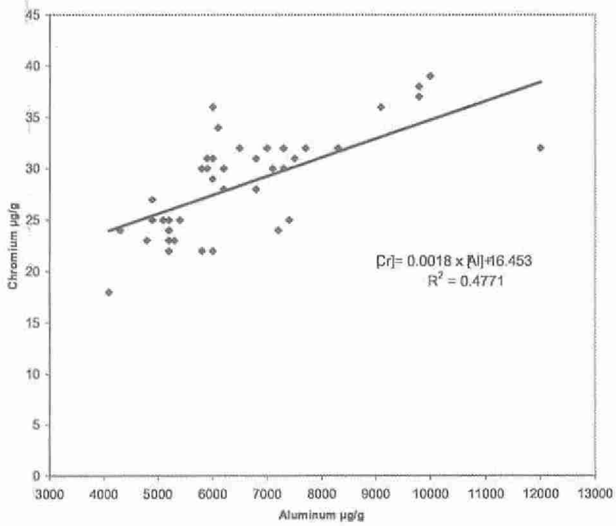


Fig. 10.4.8.11: Cr vs. Al, 0-5 cm, Beach Sand

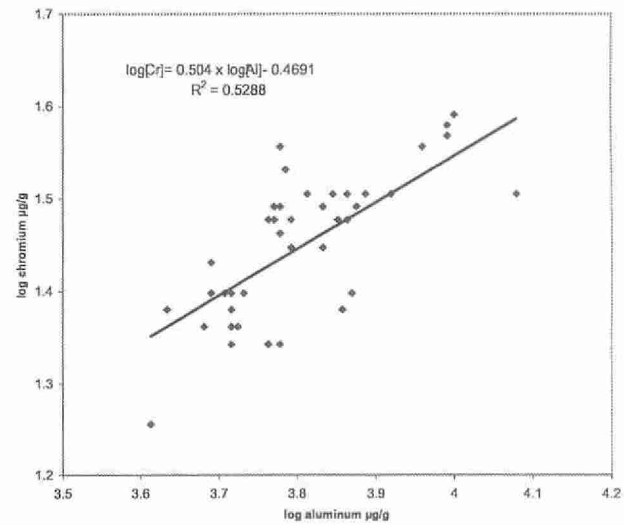


Fig. 10.4.8.11b: log Cr vs. log Al, 0-5 cm, Beach Sand

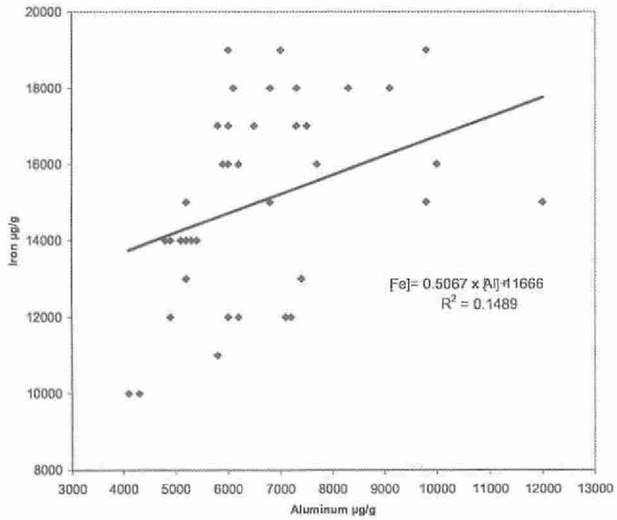


Fig. 10.4.8.12: Fe vs. Al, 0-5 cm, Beach Sand

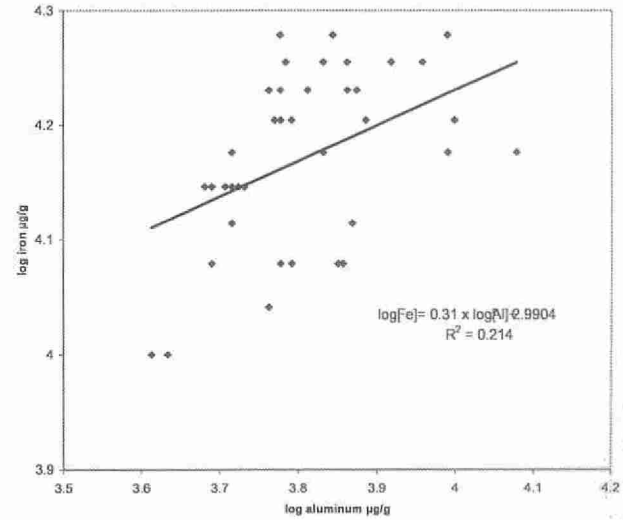


Fig. 10.4.8.12b: log Fe vs. log Al, 0-5 cm, Beach Sand

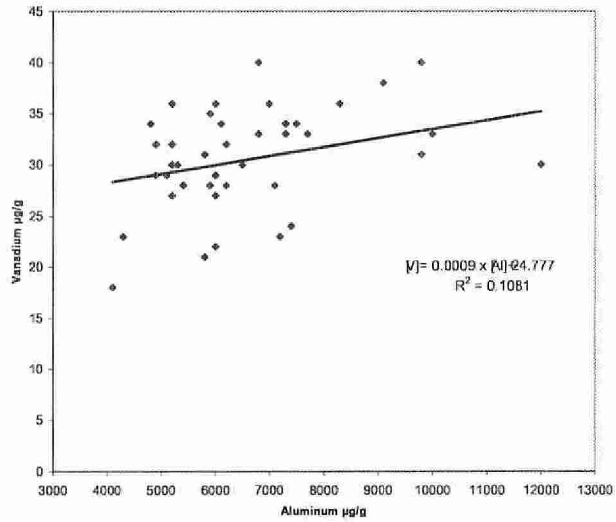


Fig. 10.4.8.13: V vs. Al, 0-5 cm, Beach Sand

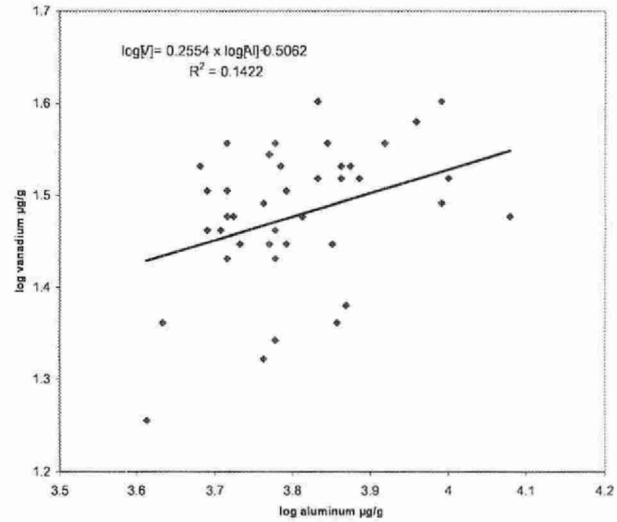


Fig. 10.4.8.13b: log V vs. log Al, 0-5 cm, Beach Sand

Table 10.4.8.1: Pearson's and Spearman's Correlations for Beach Sand in the City of Greater Sudbury

	Al	Sb	As	Ba	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*-0.03*	*0.51*	*0.49*	***0.75***	***0.75***	*0.31*	*0.53*	*0.50*	*0.50*	*0.39*	*-0.07*	*0.32*	*0.39*	***0.91***	*0.36*	*0.58*
Sb	-0.06	1	*-0.06*	*-0.26*	*-0.05*	*-0.02*	*0.19*	*-0.09*	*0.06*	*-0.14*	*0.25*	*0.05*	*0.10*	*-0.06*	*-0.06*	*-0.17*	*0.08*
As	0.59	-0.06	1	*0.39*	*0.22*	*0.45*	*0.23*	*0.46*	*0.10*	*0.39*	*0.06*	*-0.17*	*0.31*	*-0.17*	*0.40*	*0.09*	*0.45*
Ba	**0.84**	-0.15	0.60	1	*0.36*	*0.12*	*0.08*	*0.33*	*-0.09*	*0.43*	*-0.23*	*0.13*	*0.29*	*0.19*	*0.41*	*0.09*	*0.09*
Ca	0.61	-0.04	0.17	0.31	1	*0.59*	*0.14*	*0.23*	*0.42*	*0.26*	*0.33*	*0.15*	*0.10*	*0.46*	***0.87***	*0.38*	*0.40*
Cr	0.69	0.01	0.36	0.33	0.60	1	*0.38*	*0.37*	*0.76*	*0.21*	*0.60*	*-0.05*	*0.23*	*0.35*	*0.73*	*0.62*	*0.62*
Co	0.27	0.13	0.23	0.22	0.11	0.29	1	*0.62*	*0.49*	*0.26*	*0.40*	*0.19*	***0.75***	*-0.02*	*0.14*	*0.15*	*0.60*
Cu	0.74	-0.06	0.60	**0.87**	0.16	0.28	0.47	1	*0.28*	***0.80***	*0.18*	*-0.28*	***0.85***	*0.03*	*0.34*	*0.03*	***0.75***
Fe	0.39	0.06	0.14	-0.01	0.44	0.74	0.57	0.08	1	*0.07*	***0.83***	*0.21*	*0.22*	*0.48*	*0.42*	***0.80***	*0.57*
Pb	0.74	-0.09	0.58	**0.89**	0.17	0.29	0.29	**0.94**	-0.03	1	*0.01*	*-0.27*	*0.59*	*0.06*	*0.36*	*-0.03*	*0.63*
Mg	0.23	0.23	0.09	-0.14	0.32	0.58	0.61	-0.02	**0.84**	-0.13	1	*0.26*	*0.12*	*0.39*	*0.26*	*0.57*	*0.63*
Mn	-0.10	0.01	-0.11	-0.07	0.17	-0.06	0.20	-0.25	0.23	-0.28	0.22	1	*-0.09*	*0.22*	*-0.02*	*0.37*	*-0.02*
Ni	0.52	0.03	0.45	0.64	0.14	0.21	0.62	**0.83**	0.08	**0.81**	0.02	-0.18	1	*-0.12*	*0.16*	*-0.06*	*0.62*
Se	0.29	-0.06	-0.16	0.02	0.47	0.33	0.03	-0.10	0.47	-0.13	0.39	0.16	-0.18	1	*0.41*	*0.52*	*0.08*
Sr	**0.82**	-0.06	0.34	0.50	**0.87**	0.73	0.02	0.34	0.42	0.38	0.21	0.01	0.21	0.43	1	*0.36*	*0.43*
V	0.33	-0.11	0.08	0.03	0.43	0.64	0.23	-0.08	**0.83**	-0.13	0.59	0.40	-0.17	0.52	0.42	1	*0.30*
Zn	0.50	0.05	0.40	0.34	0.37	0.63	0.59	0.49	0.52	0.49	0.63	-0.05	0.48	0.04	0.35	0.27	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.4.9 Crushed Stone

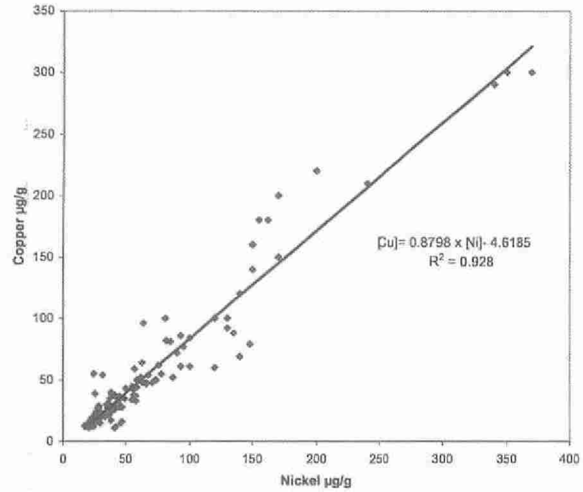


Fig. 10.4.9.1: Cu vs. Ni, 0-5 cm, Crushed Stone

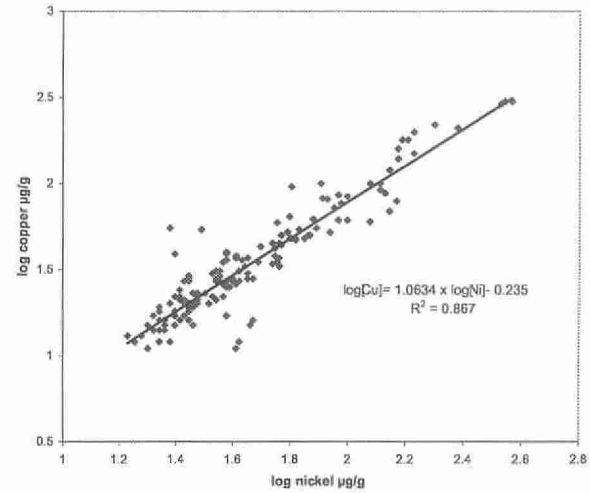


Fig. 10.4.9.1b: log Cu vs log Ni, 0-5 cm, Crushed Stone

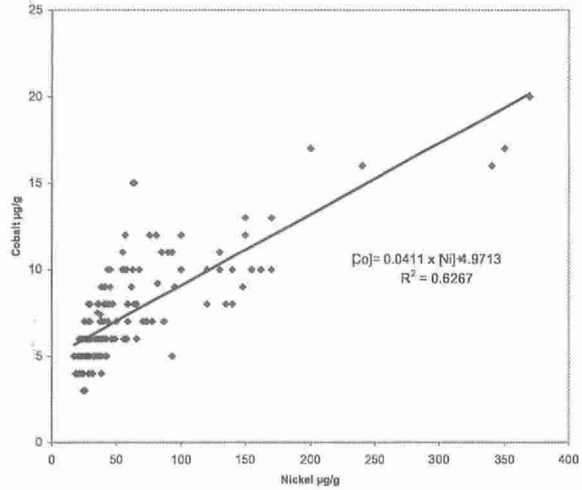


Fig. 10.4.9.2: Co vs. Ni, 0-5 cm, Crushed Stone

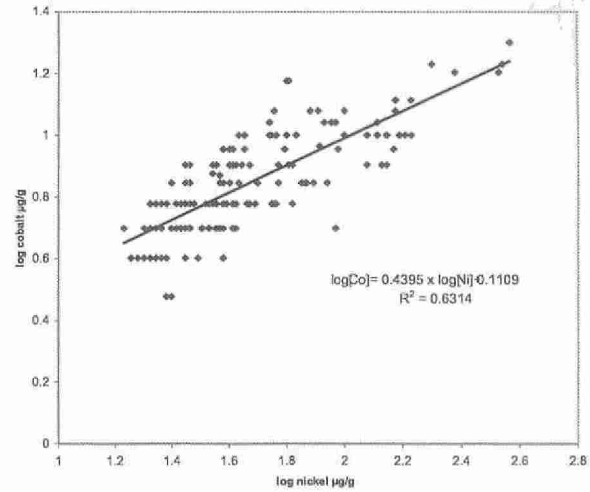


Fig. 10.4.9.2b: log Co vs log Ni, 0-5 cm, Crushed Stone

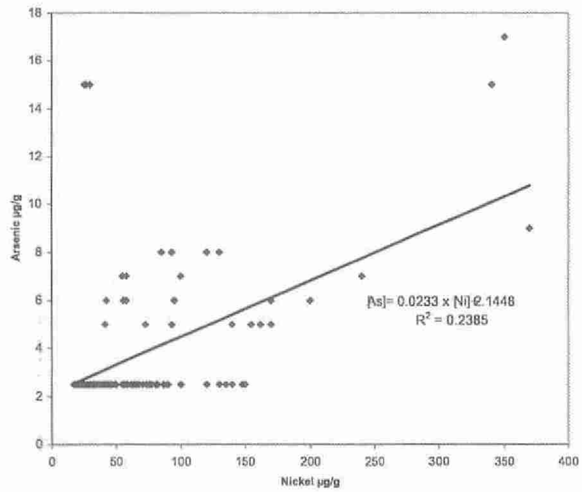


Fig. 10.4.9.3: As vs. Ni, 0-5 cm, Crushed Stone

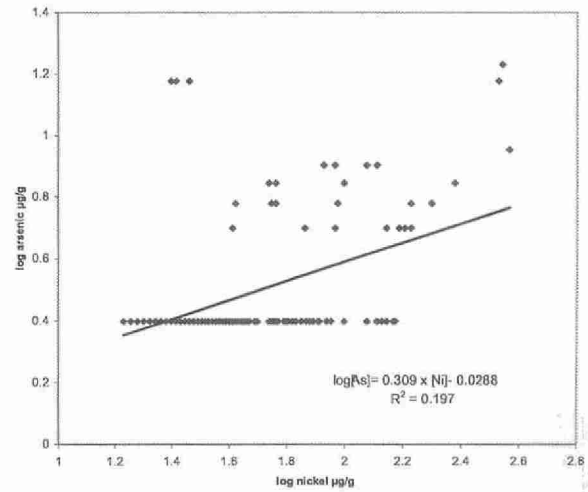


Fig. 10.4.9.3b: log As vs log Ni, 0-5 cm, Crushed Stone

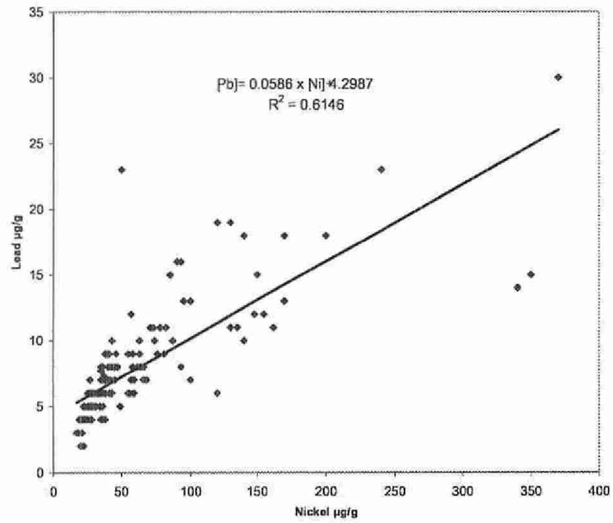


Fig. 10.4.9.4: Pb vs. Ni, 0-5 cm, Crushed Stone

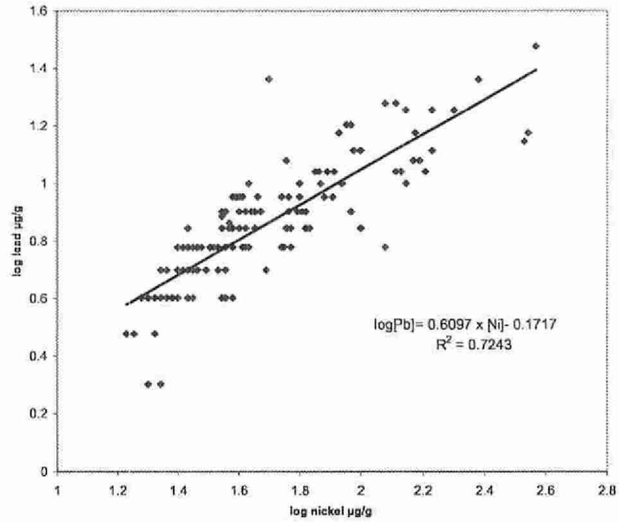


Fig. 10.4.9.4b: log Pb vs. log Ni, 0-5 cm, Crushed Stone

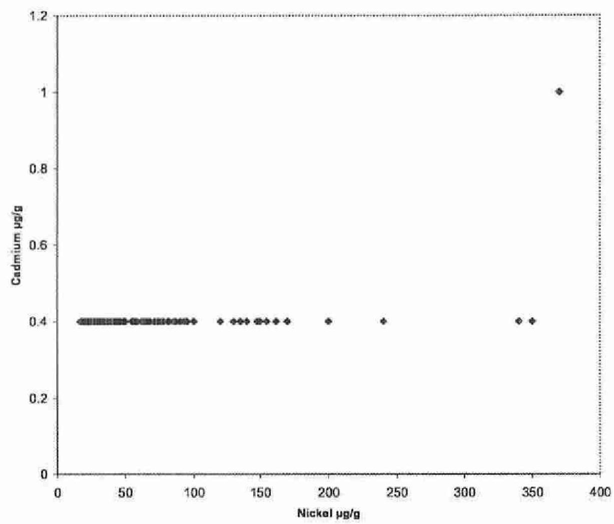


Fig. 10.4.9.5: Cd vs. Ni, 0-5 cm, Crushed Stone

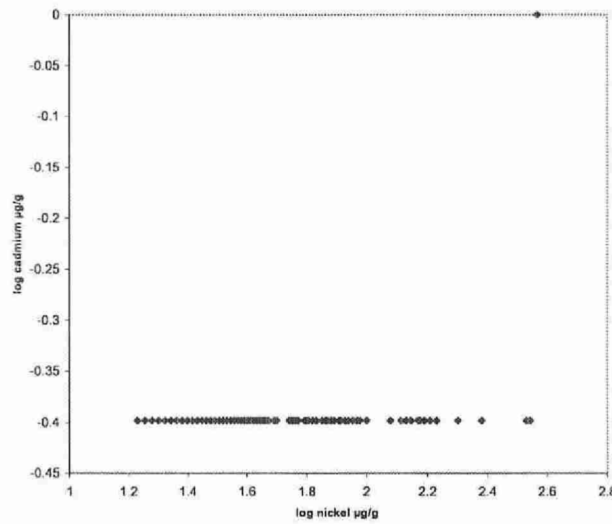


Fig. 10.4.9.5b: log Cd vs. log Ni, 0-5 cm, Crushed Stone

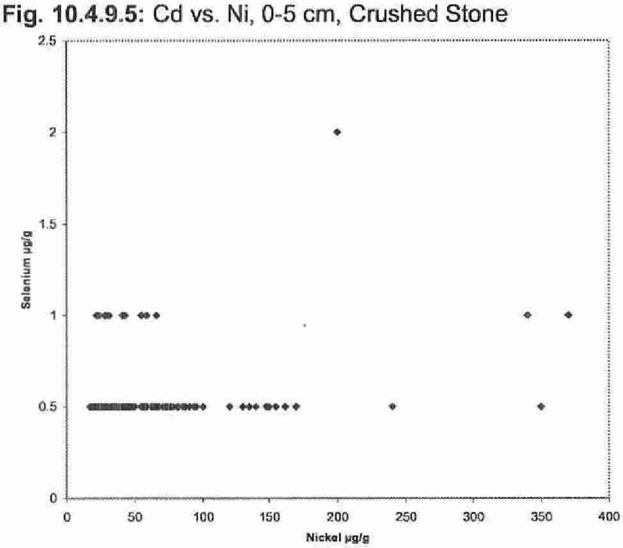


Fig. 10.4.9.6: Se vs. Ni, 0-5 cm, Crushed Stone

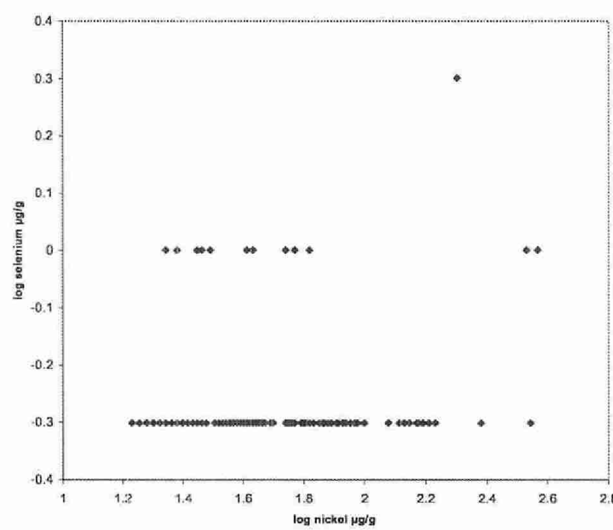


Fig. 10.4.9.6b: log Se vs. log Ni, 0-5 cm, Crushed Stone

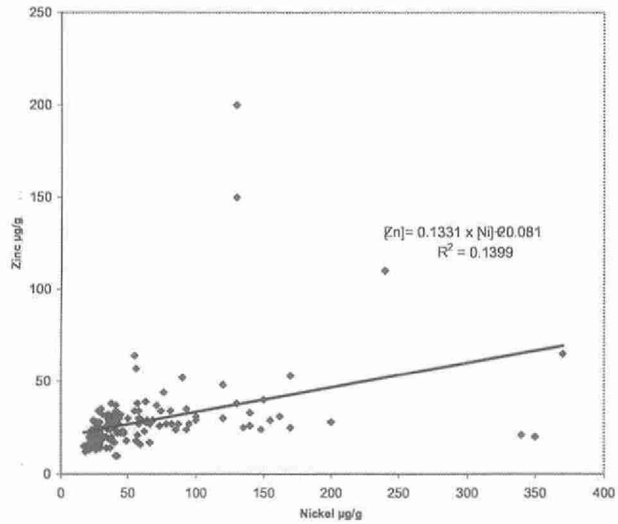


Fig. 10.4.9.7: Zn vs. Ni, 0-5 cm, Crushed Stone

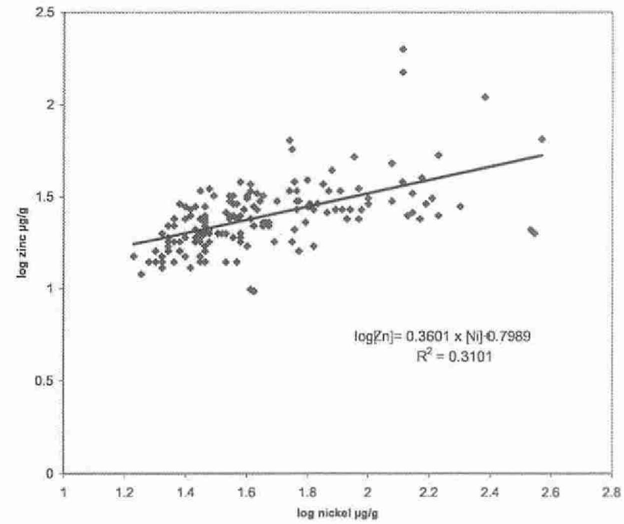


Fig. 10.4.9.7b: log Zn vs. log Ni, 0-5 cm, Crushed Stone

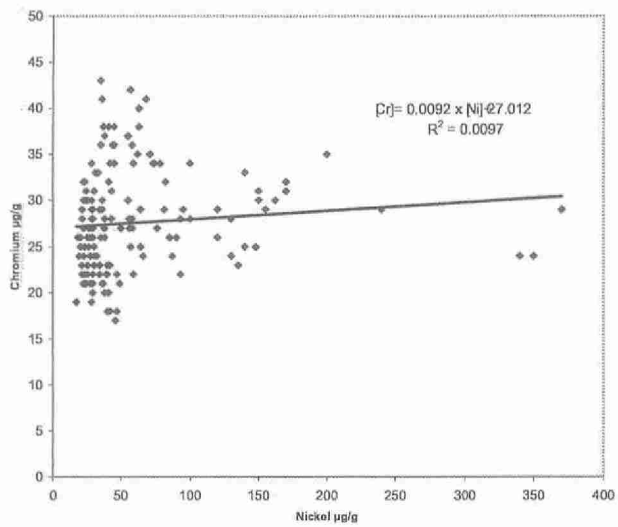


Fig. 10.4.9.8: Cr vs. Ni, 0-5 cm, Crushed Stone

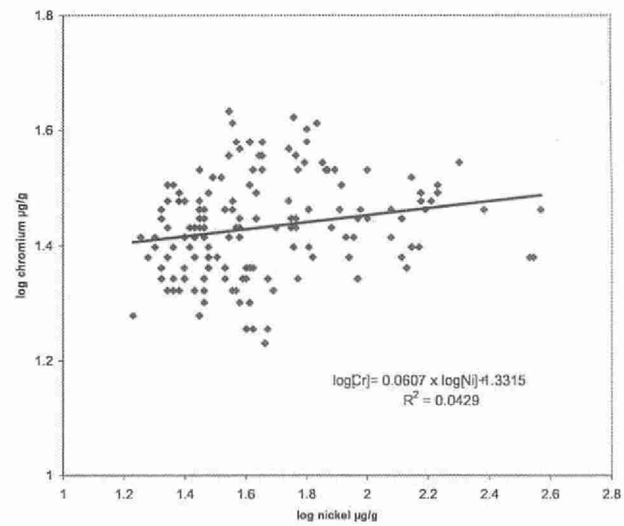


Fig. 10.4.9.8b: log Cr vs. log Ni, 0-5 cm, Crushed Stone

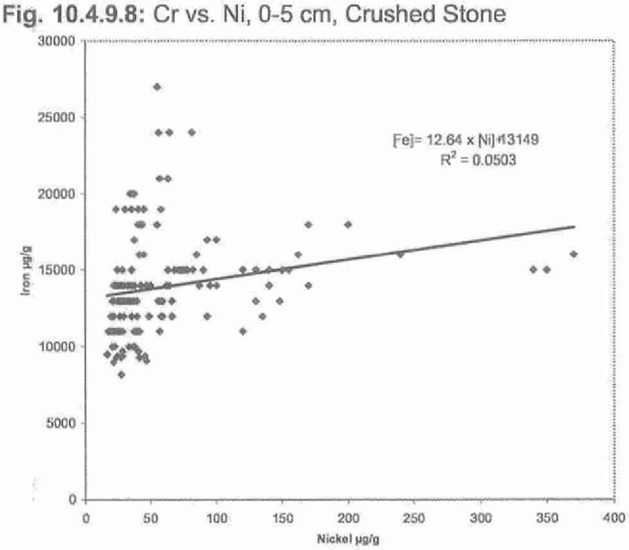


Fig. 10.4.9.9: Fe vs. Ni, 0-5 cm, Crushed Stone

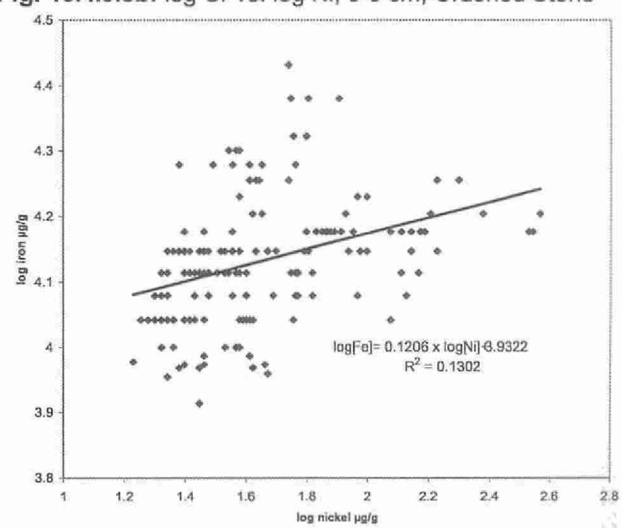


Fig. 10.4.9.9b: log Fe vs. og Ni, 0-5 cm, Crushed Stone

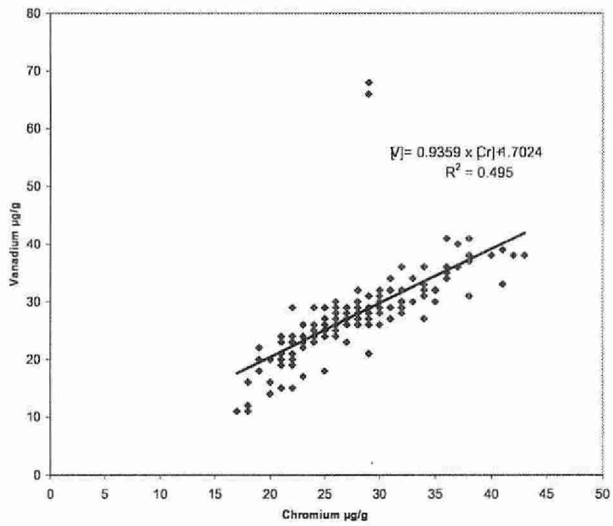


Fig. 10.4.9.10: V vs. Cr, 0-5 cm, Crushed Stone

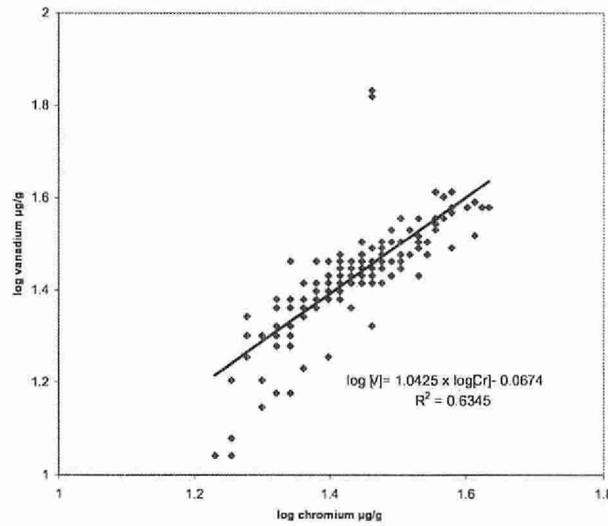


Fig. 10.4.9.10b: log V vs. log Cr, 0-5 cm, Crushed Stone

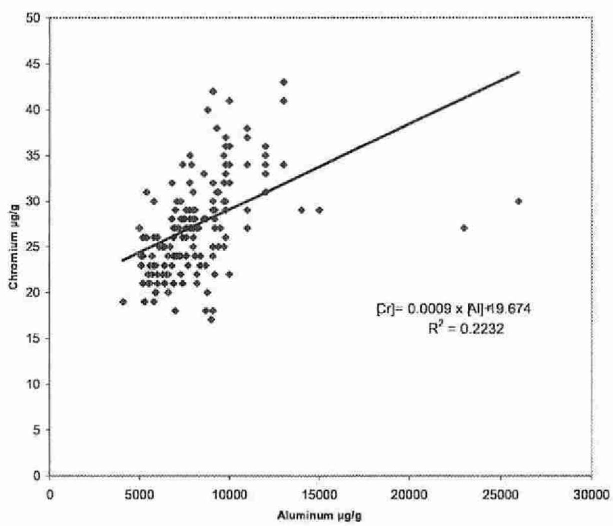


Fig. 10.4.9.11: Cr vs. Al, 0-5 cm, Crushed Stone

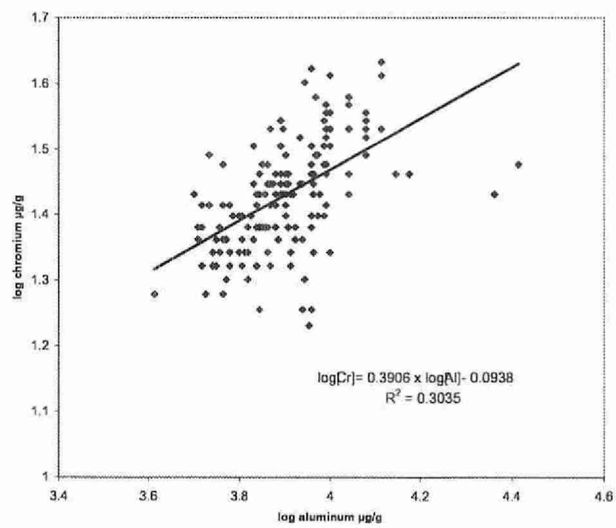


Fig. 10.4.9.11b: log Cr vs. log Al, 0-5 cm, Crushed Stone

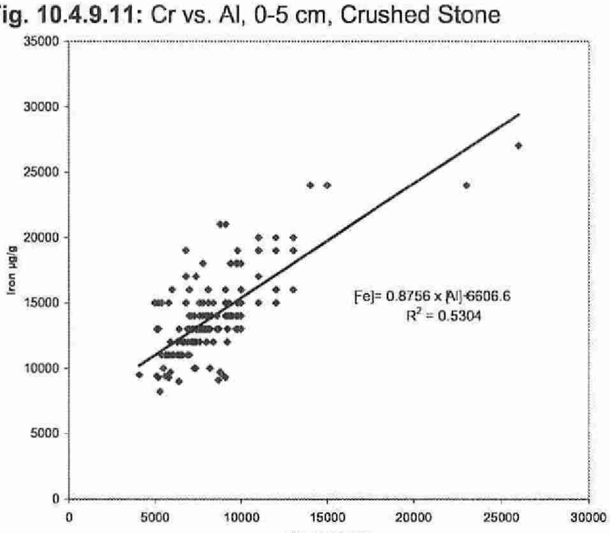


Fig. 10.4.9.12: Fe vs. Al, 0-5 cm, Crushed Stone

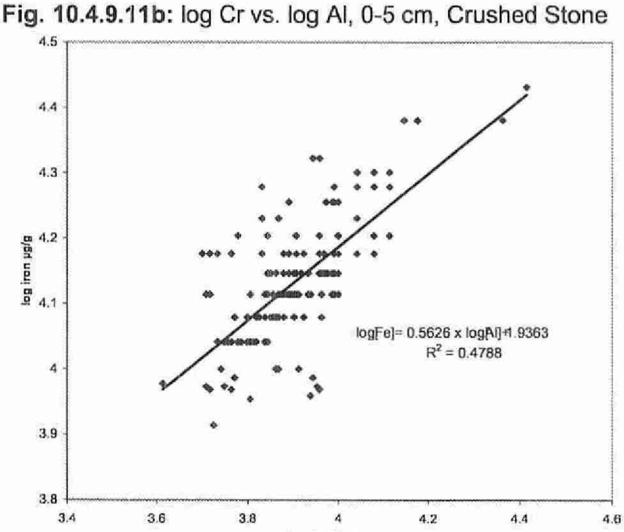


Fig. 10.4.9.12b: log Fe vs. log Al, 0-5 cm, Crushed Stone

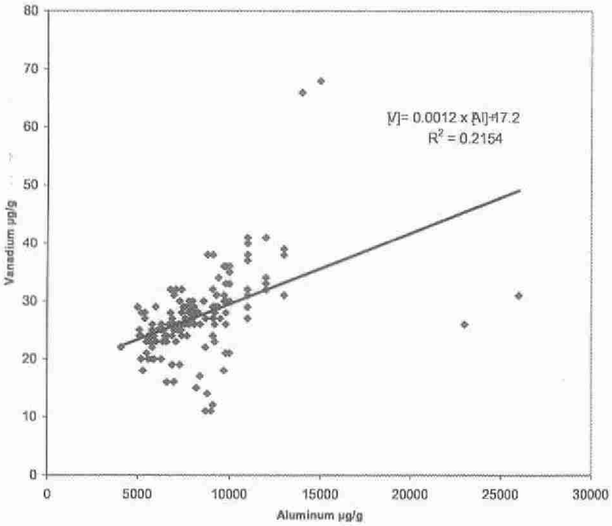


Fig. 10.4.9.13: V vs. Al, 0-5 cm, Crushed Stone

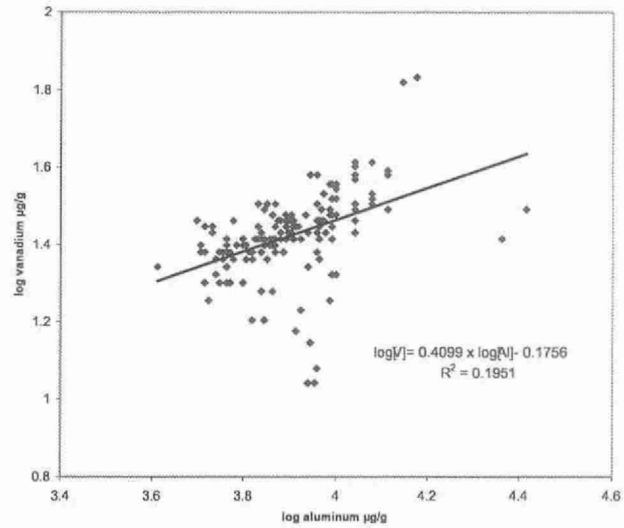


Fig. 10.4.9.13b: log V vs. log Al, 0-5 cm, Crushed Stone

Table 10.4.9.1: Pearsons and Spearmans Correlations for Crushed Stone in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.08*	*0.14*	*0.66*	*0.01*	*0.26*	*0.62*	*0.30*	*0.33*	*0.65*	*0.29*	*0.35*	*0.59*	*0.13*	*0.25*	*0.07*	*0.30*	*0.60*	*0.39*
Sb	0.05	1	*0.15*	*0.00*	*-0.02*	*0.01*	*0.03*	*0.05*	*0.04*	*-0.03*	*0.01*	*0.05*	*-0.12*	*0.21*	*0.11*	*0.04*	*0.00*	*-0.01*	*-0.04*
As	0.09	0.09	1	*-0.08*	*0.19*	*-0.29*	*0.09*	*0.35*	*0.35*	*0.21*	*0.36*	*-0.24*	*-0.04*	*0.00*	*0.40*	*0.04*	*-0.28*	*0.14*	*0.17*
Ba	**0.83**	0.03	0.01	1	*0.02*	*0.48*	*0.35*	*0.21*	*0.30*	*0.44*	*0.14*	*0.56*	*0.54*	*0.10*	*0.13*	*0.15*	*0.57*	*0.32*	*0.25*
Cd	-0.01	-0.02	0.16	-0.01	1	*0.01*	*0.05*	*0.14*	*0.14*	*0.09*	*0.14*	*0.07*	*0.05*	*-0.03*	*0.14*	*0.25*	*-0.08*	*0.05*	*0.13*
Ca	0.12	0.16	-0.07	0.08	-0.02	1	*-0.30*	*-0.32*	*-0.25*	*-0.19*	*-0.22*	***0.88***	*0.18*	*0.51*	*-0.20*	*0.04*	***0.94***	*-0.34*	*-0.24*
Cr	0.47	0.08	-0.02	0.22	0.02	-0.39	1	*0.50*	*0.43*	***0.81***	*0.33*	*-0.08*	*0.64*	*-0.33*	*0.26*	*0.12*	*-0.26*	***0.89***	*0.55*
Co	0.21	0.02	0.38	0.15	0.34	-0.15	0.40	1	***0.78***	*0.70*	***0.80***	*-0.03*	*0.21*	*-0.01*	***0.78***	*0.06*	*-0.34*	*0.50*	*0.67*
Cu	0.04	-0.03	0.48	0.01	0.38	-0.14	0.17	**0.81**	1	*0.66*	***0.80***	*0.01*	*0.22*	*-0.06*	***0.87***	*0.16*	*-0.23*	*0.45*	*0.70*
Fe	0.74	-0.05	0.10	0.55	0.05	-0.24	0.72	0.58	0.32	1	*0.53*	*0.09*	*0.61*	*-0.22*	*0.46*	*0.16*	*-0.17*	***0.82***	*0.69*
Pb	0.05	-0.03	0.33	-0.04	0.41	-0.05	0.24	0.76	**0.77**	0.32	1	*0.03*	*0.15*	*0.05*	***0.88***	*0.01*	*-0.26*	*0.35*	*0.67*
Mg	0.30	0.11	-0.16	0.37	0.01	**0.88**	-0.27	-0.13	-0.13	-0.02	-0.07	1	*0.25*	*0.52*	*0.02*	*0.08*	***0.84***	*-0.15*	*-0.03*
Mn	**0.77**	-0.10	-0.04	0.72	0.02	-0.15	0.53	0.16	-0.05	0.70	0.02	0.08	1	*-0.29*	*0.09*	*0.06*	*0.20*	*0.67*	*0.42*
Mo	0.12	0.28	-0.06	0.15	-0.03	**0.78**	-0.31	-0.06	-0.10	-0.17	-0.05	0.72	-0.15	1	*0.13*	*-0.12*	*0.49*	*-0.41*	*-0.19*
Ni	0.02	-0.02	0.49	-0.01	0.43	-0.06	0.10	**0.79**	**0.96**	0.22	**0.78**	-0.08	-0.07	-0.03	1	*0.04*	*-0.22*	*0.27*	*0.60*
Se	0.02	0.05	0.08	0.05	0.20	-0.06	0.14	0.23	0.30	0.15	0.16	0.02	0.02	-0.10	0.24	1	*0.03*	*0.09*	*0.09*
Sr	0.28	0.06	-0.18	0.43	-0.06	0.73	-0.31	-0.26	-0.21	-0.06	-0.21	**0.92**	0.10	0.65	-0.19	0.04	1	*-0.28*	*-0.28*
V	0.46	-0.05	0.01	0.22	0.02	-0.50	0.70	0.41	0.18	**0.78**	0.17	-0.37	0.45	-0.44	0.08	0.06	-0.35	1	*0.56*
Zn	0.10	-0.05	0.04	0.13	0.14	-0.14	0.15	0.45	0.35	0.29	0.42	-0.10	0.18	-0.11	0.37	0.01	-0.17	0.16	1

Spearmans correlations in upper right in italics. Pearsons correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.4.10 Playground Gravel

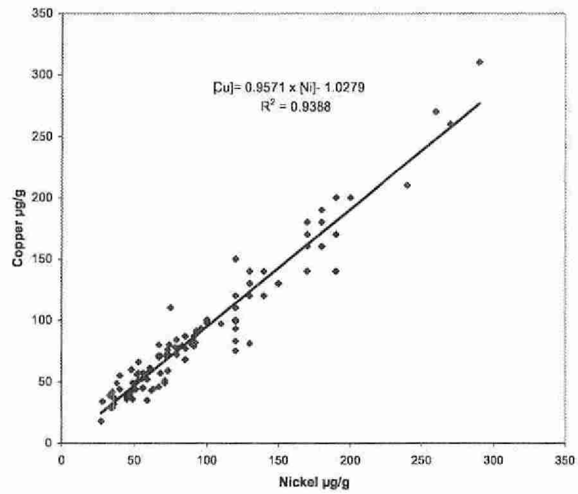


Fig. 10.4.10.1: Cu vs. Ni, 0-5 cm, Playground Gravel

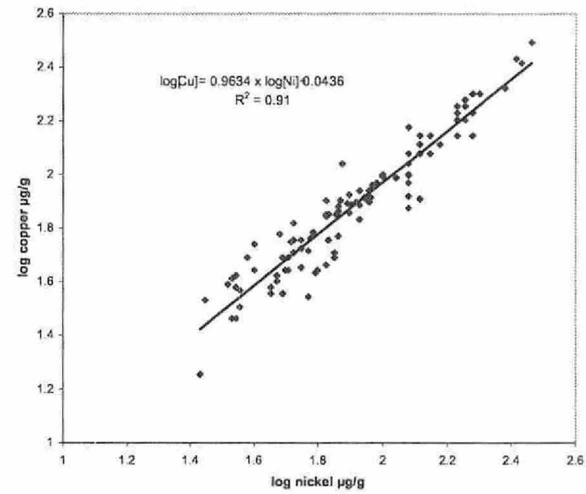


Fig. 10.4.10.1b: log Cu vs log Ni, 0-5 cm, Playground Gravel

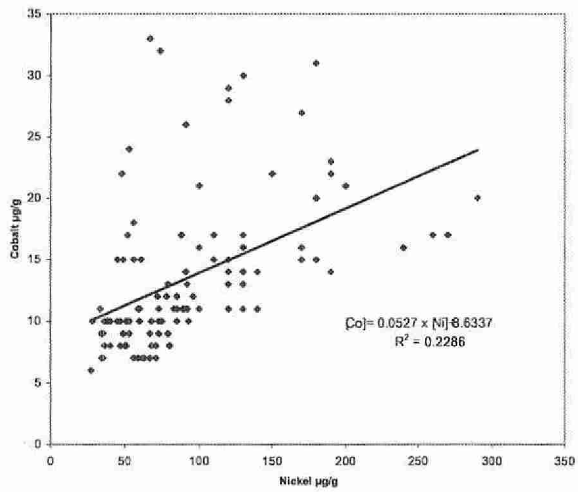


Fig. 10.4.10.2: Co vs. Ni, 0-5 cm, Playground Gravel

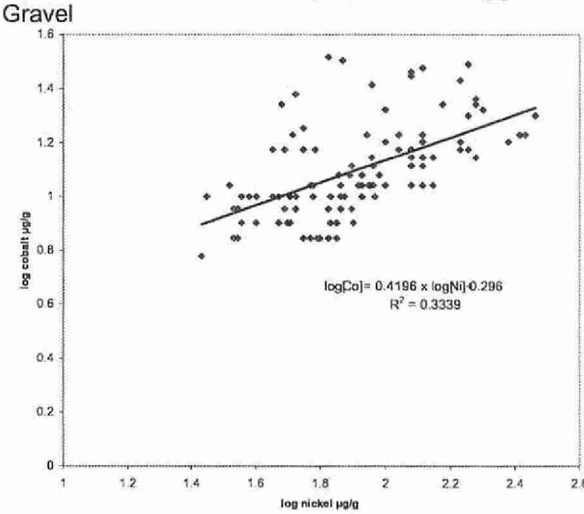


Fig. 10.4.10.2b: log Co vs. log Ni, 0-5 cm, Playground Gravel

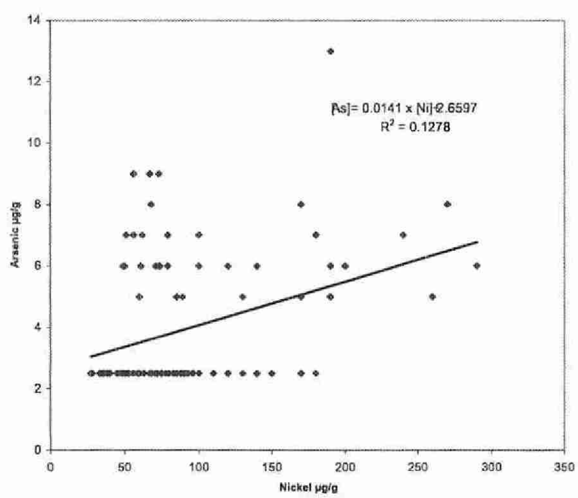


Fig. 10.4.10.3: As vs. Ni, 0-5 cm, Playground Gravel

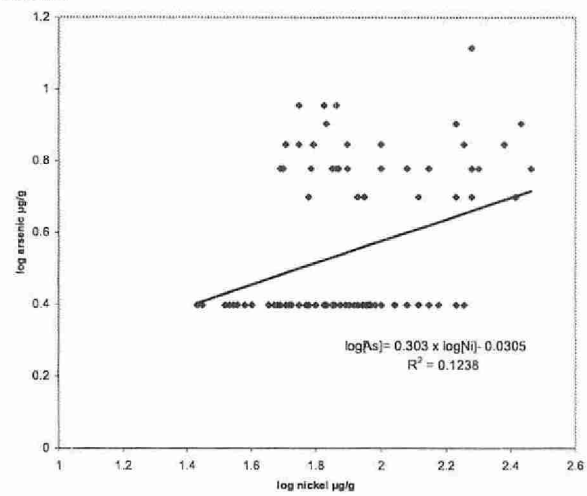


Fig. 10.4.10.3b: log As vs. log Ni, 0-5 cm, Playground Gravel

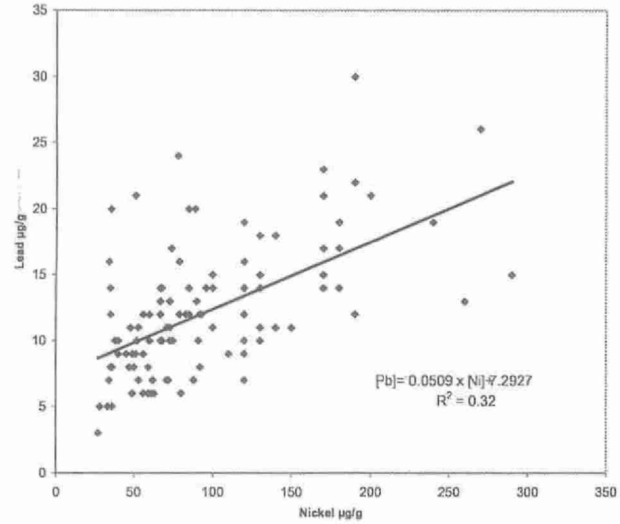


Fig. 10.4.10.4: Pb vs. Ni, 0-5 cm, Playground Gravel

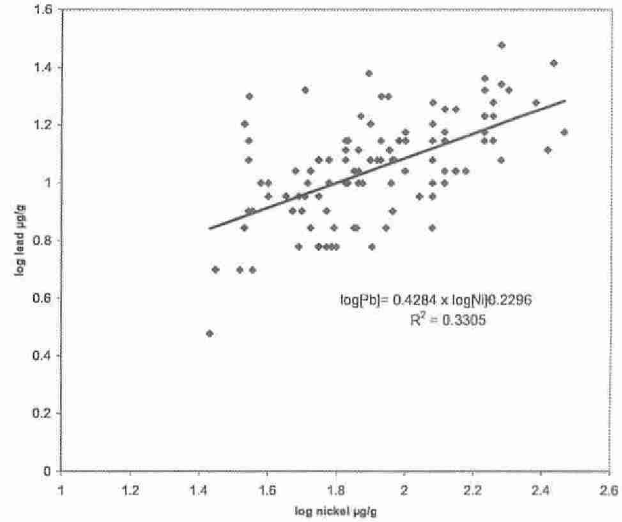


Fig. 10.4.10.4b: log Pb vs. log Ni, 0-5 cm, Playground Gravel

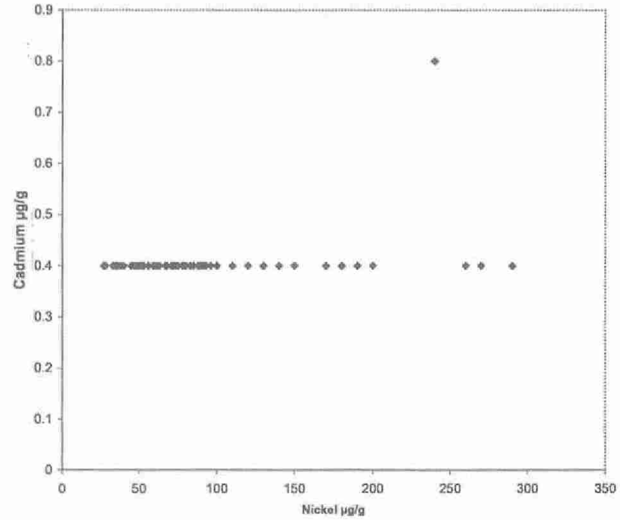


Fig. 10.4.10.5: Cd vs. Ni, 0-5 cm, Playground Gravel

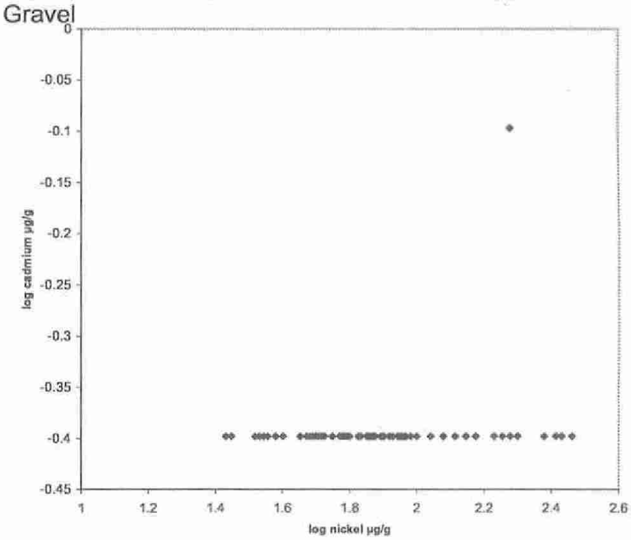


Fig. 10.4.10.5b: log Cd vs. log Ni, 0-5 cm, Playground Gravel

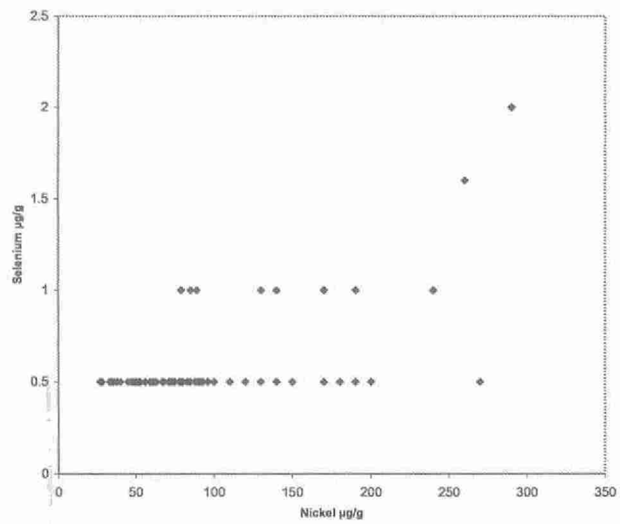


Fig. 10.4.10.6: Se vs. Ni, 0-5 cm, Playground Gravel

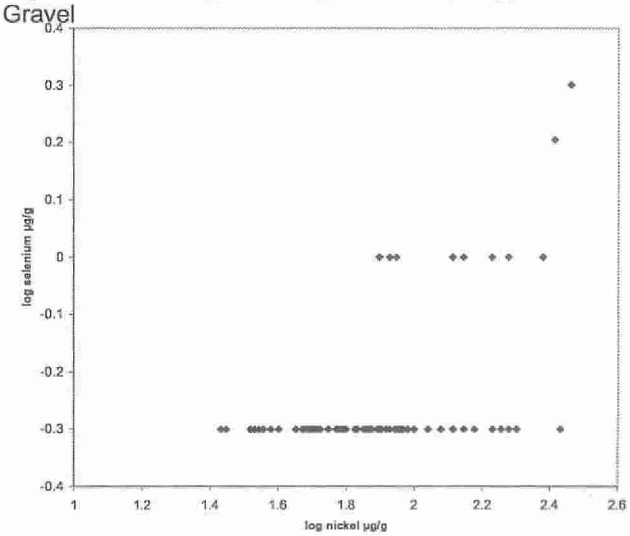


Fig. 10.4.10.6b: log Se vs. log Ni, 0-5 cm, Playground Gravel

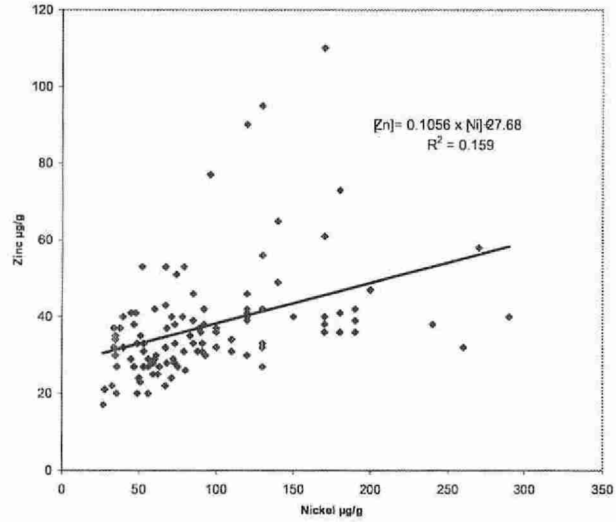


Fig. 10.4.10.7: Zn vs. Ni, 0-5 cm, Playground Gravel

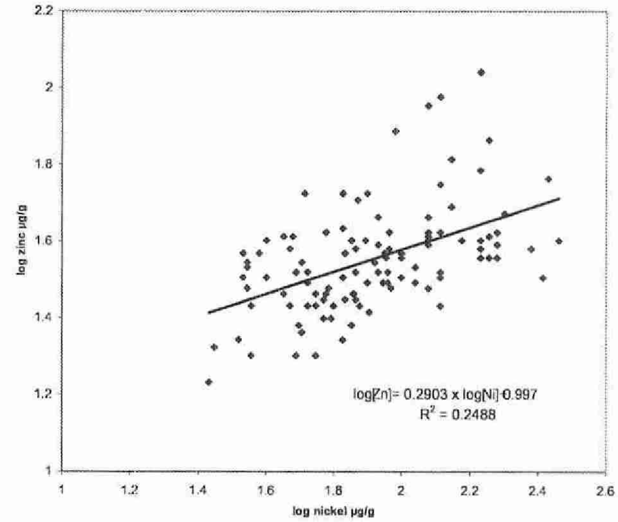


Fig. 10.4.10.7b: log Zn vs. log Ni, 0-5 cm, Playground Gravel

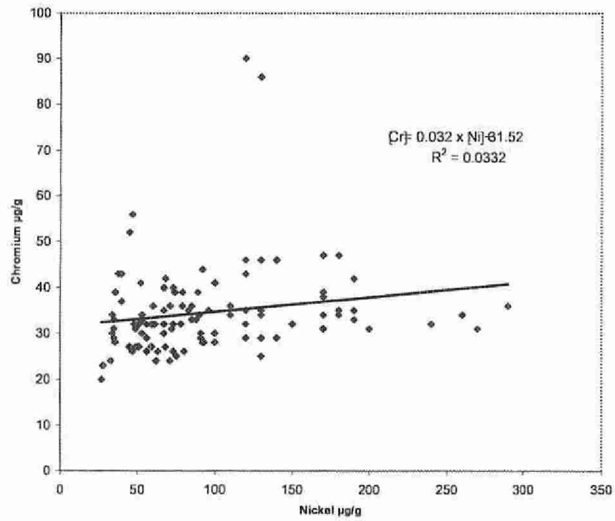


Fig. 10.4.10.8: Cr vs. Ni, 0-5 cm, Playground Gravel

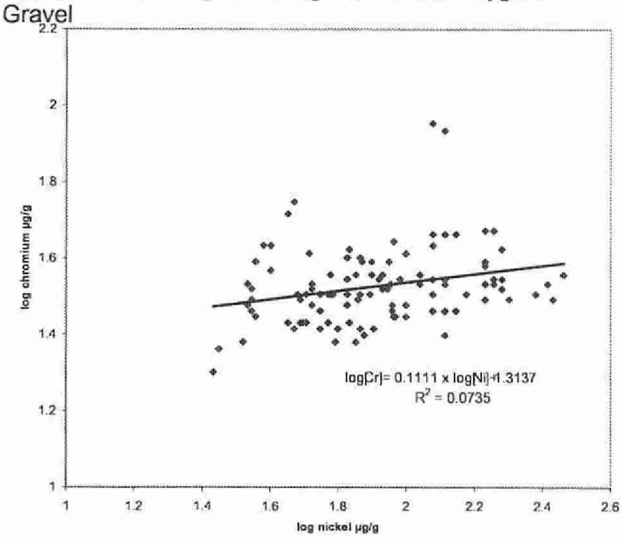


Fig. 10.4.10.8b: log Cr vs. log Ni, 0-5 cm, Playground Gravel

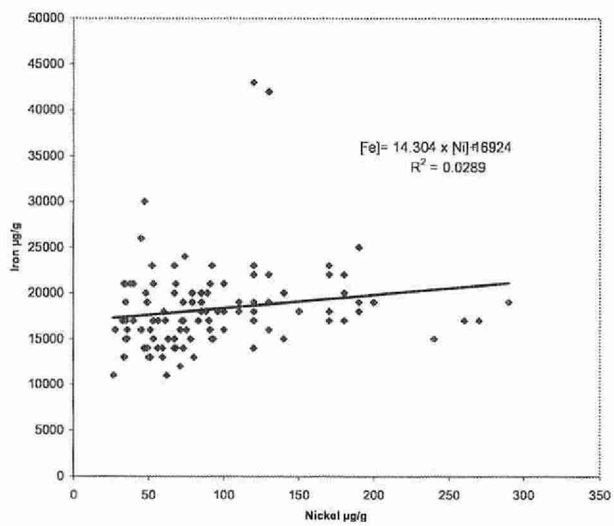


Fig. 10.4.10.9: Fe vs. Ni, 0-5 cm, Playground Gravel

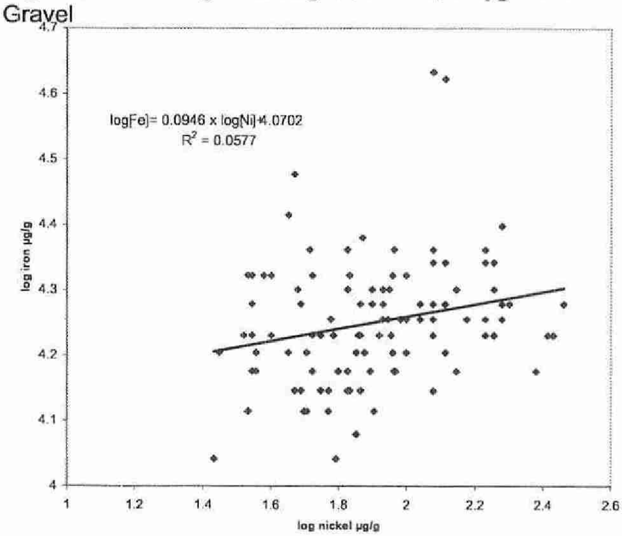


Fig. 10.4.10.9b: log Fe vs. log Ni, 0-5 cm, Playground Gravel

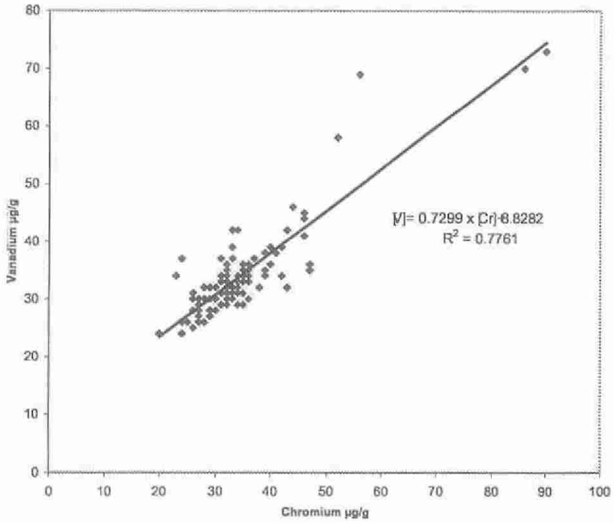


Fig. 10.4.10.10: V vs. Cr, 0-5 cm, Playground Gravel

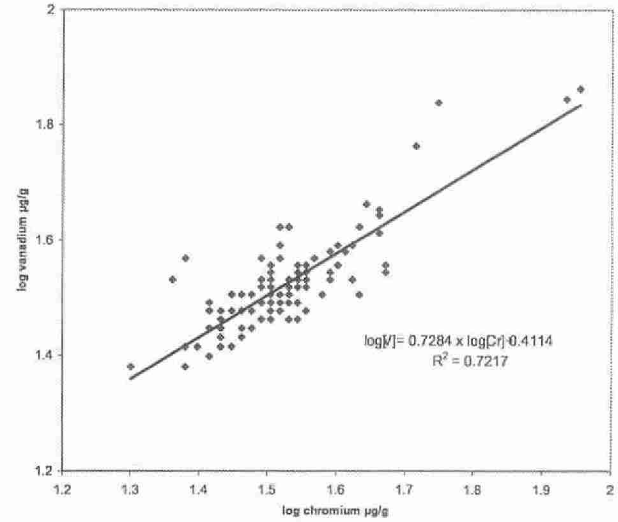


Fig. 10.4.10.10b: log V vs. log Cr, 0-5 cm, Playground Gravel

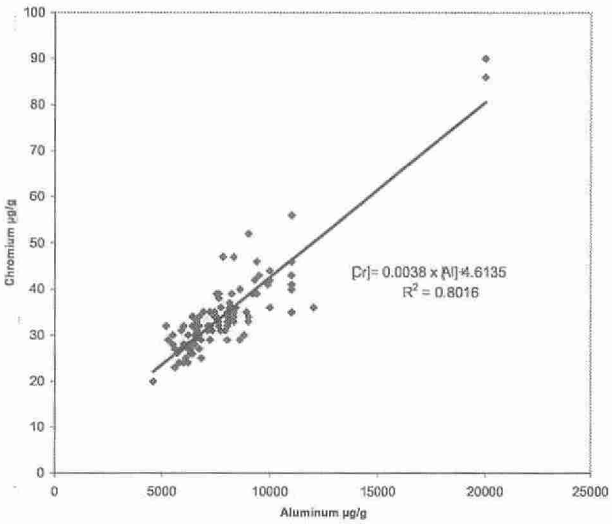


Fig. 10.4.10.11: Cr vs. Al, 0-5 cm, Playground Gravel

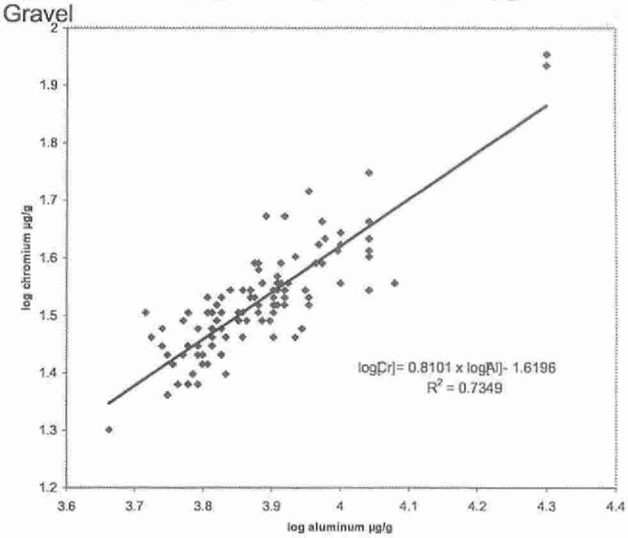


Fig. 10.4.10.11b: log Cr vs. log Al, 0-5 cm, Playground Gravel

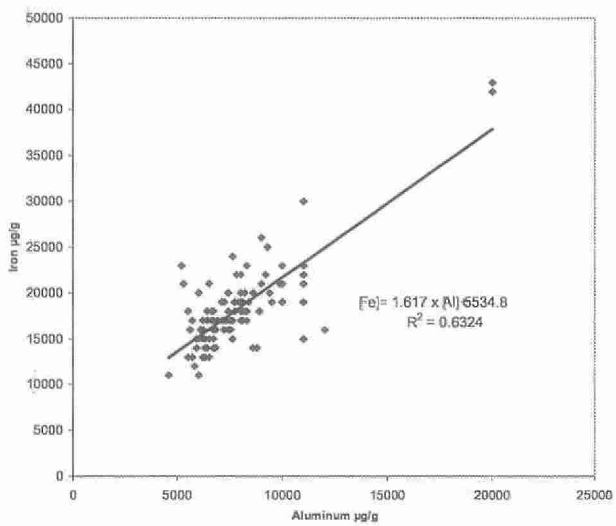


Fig. 10.4.10.12: Fe vs. Al, 0-5 cm, Playground Gravel

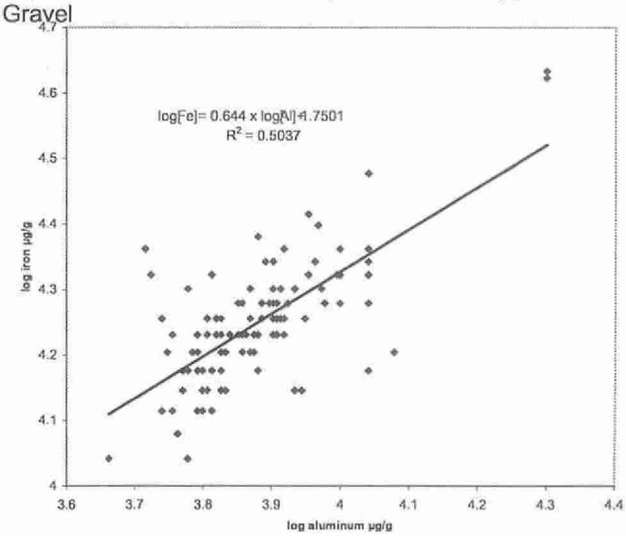


Fig. 10.4.10.12b: log Fe vs. log Al, 0-5 cm, Playground Gravel

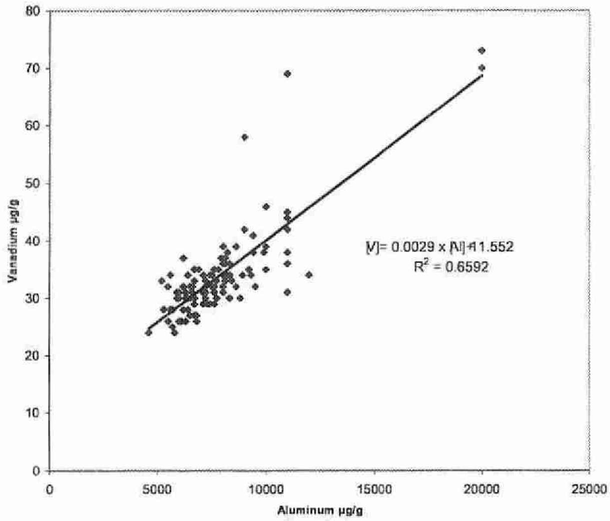


Fig. 10.4.10.13: V vs. Al, 0-5 cm, Playground Gravel

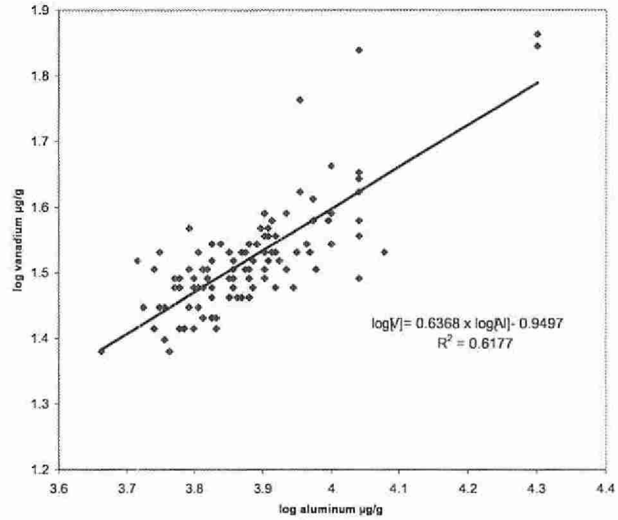


Fig. 10.4.10.13b: log V vs. log Al, 0-5 cm, Playground Gravel

Table 10.4.10.1: Pearson's and Spearman's Correlations for Play ground Gravel in the City of Greater Sudbury

	Al	Sb	As	Ba	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.08*	*0.09*	***0.76***	*0.60*	***0.82***	*0.06*	*0.18*	*0.61*	*0.39*	***0.80***	***0.82***	*0.17*	*0.17*	*0.67*	*0.73*	*0.48*
Sb	0.05	1	*0.19*	*0.14*	*-0.06*	*0.11*	*0.10*	*0.22*	*0.09*	*0.15*	*-0.02*	*-0.07*	*0.22*	*0.44*	*0.05*	*0.02*	*0.04*
As	-0.01	0.38	1	*0.22*	*-0.06*	*0.00*	*0.10*	*0.29*	*-0.01*	*0.32*	*-0.09*	*-0.05*	*0.31*	*0.32*	*0.04*	*-0.03*	*-0.01*
Ba	**0.90**	0.07	0.05	1	*0.53*	*0.68*	*0.29*	*0.33*	*0.43*	*0.26*	*0.57*	*0.61*	*0.35*	*0.13*	*0.54*	*0.43*	*0.48*
Ca	0.28	-0.05	-0.11	0.10	1	*0.54*	*-0.03*	*0.08*	*0.23*	*0.07*	*0.60*	*0.61*	*0.15*	*0.03*	***0.78***	*0.38*	*0.40*
Cr	**0.90**	0.06	-0.07	**0.87**	0.10	1	*0.32*	*0.32*	*0.74*	*0.41*	***0.86***	***0.80***	*0.29*	*0.18*	*0.51*	***0.76***	*0.67*
Co	0.19	0.03	0.02	0.37	-0.17	0.40	1	*0.69*	*0.57*	*0.38*	*0.24*	*0.06*	*0.63*	*0.11*	*-0.16*	*0.10*	*0.52*
Cu	0.11	0.32	0.34	0.24	-0.02	0.21	0.50	1	*0.33*	*0.63*	*0.24*	*0.03*	***0.96***	*0.35*	*-0.04*	*-0.02*	*0.56*
Fe	**0.80**	0.12	-0.07	**0.77**	-0.05	**0.90**	0.57	0.22	1	*0.44*	*0.73*	*0.59*	*0.26*	*0.16*	*0.19*	*0.74*	*0.64*
Pb	0.25	0.32	0.41	0.22	-0.01	0.28	0.29	0.61	0.32	1	*0.35*	*0.26*	*0.56*	*0.40*	*0.08*	*0.31*	*0.58*
Mg	**0.91**	-0.03	-0.15	**0.88**	0.19	**0.91**	0.36	0.17	**0.85**	0.24	1	***0.84***	*0.23*	*0.14*	*0.45*	***0.76***	*0.67*
Mn	**0.86**	-0.08	-0.12	0.71	0.32	**0.85**	0.15	0.01	**0.75**	0.16	**0.82**	1	*0.04*	*0.11*	*0.56*	***0.84***	*0.51*
Ni	0.09	0.28	0.36	0.22	0.05	0.18	0.48	**0.97**	0.17	0.57	0.15	0.01	1	*0.34*	*0.01*	*-0.06*	*0.51*
Se	0.04	0.38	0.28	0.03	0.00	0.05	0.08	0.56	0.05	0.33	0.03	0.01	0.51	1	*0.09*	*0.14*	*0.14*
Sr	0.24	0.03	0.02	0.00	0.71	0.08	-0.35	-0.04	-0.09	0.02	0.01	0.37	0.03	0.08	1	*0.43*	*0.18*
V	**0.81**	-0.01	-0.13	0.70	0.05	**0.88**	0.20	-0.01	**0.87**	0.17	**0.80**	**0.88**	-0.04	0.01	0.15	1	*0.49*
Zn	0.52	0.01	-0.10	0.59	0.09	0.66	0.50	0.44	0.60	0.39	0.63	0.47	0.40	0.02	-0.05	0.47	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.5

10.5 Soil Depth Profiles of Selected Metals and Arsenic in Community Groups of the City of Greater Sudbury

10.5.1 Outer Sudbury Communities

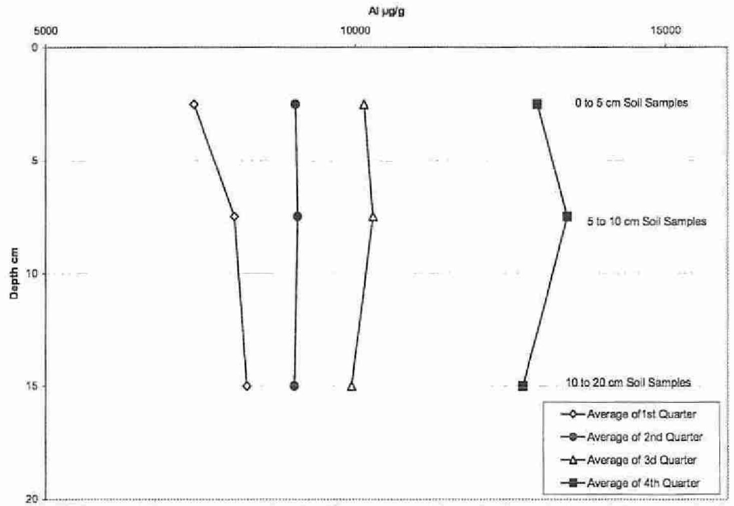


Figure 10.5.1.1: Outer Communities, Al depth profiles, all data.

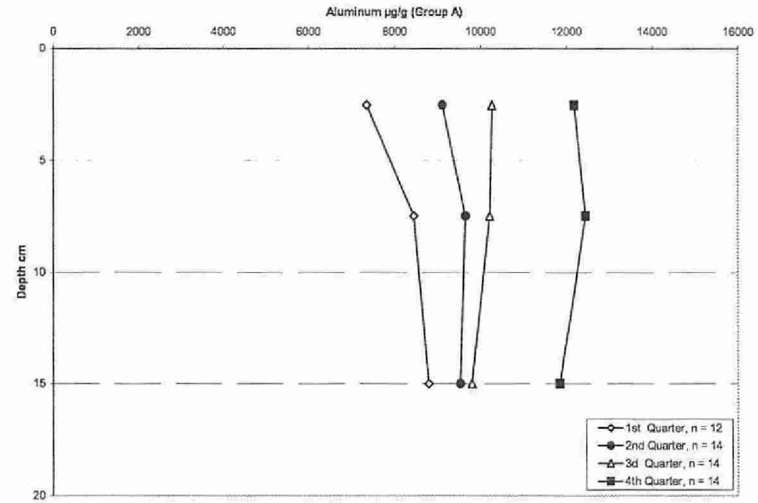


Figure 10.5.1.1a: Outer Communities, Al depth profiles, Group A data.

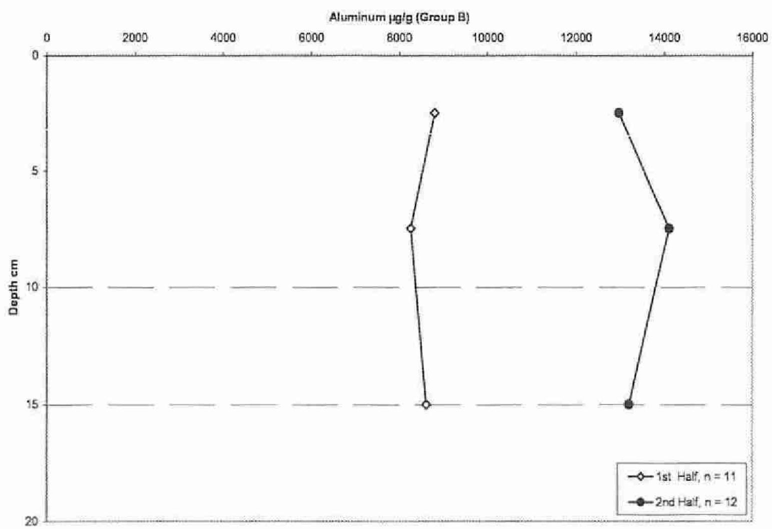


Figure 10.5.1.1b: Outer Communities, Al depth profiles, Group B data.

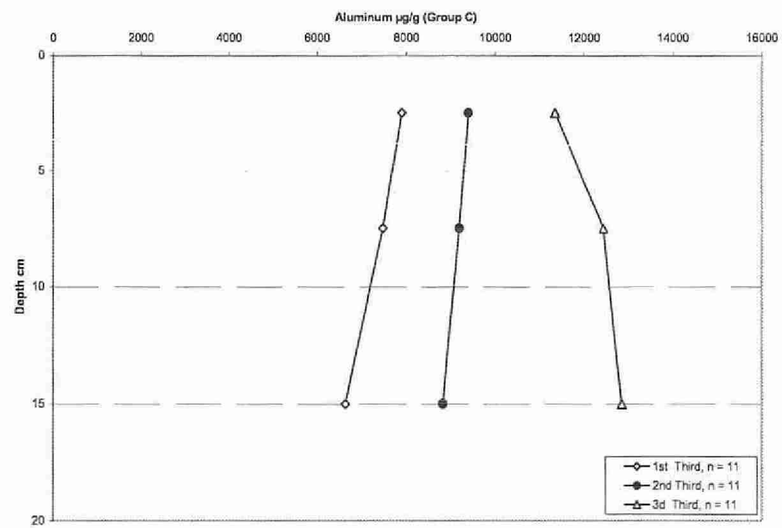


Figure 10.5.1.1c: Outer Communities, Al depth profiles, Group C data.

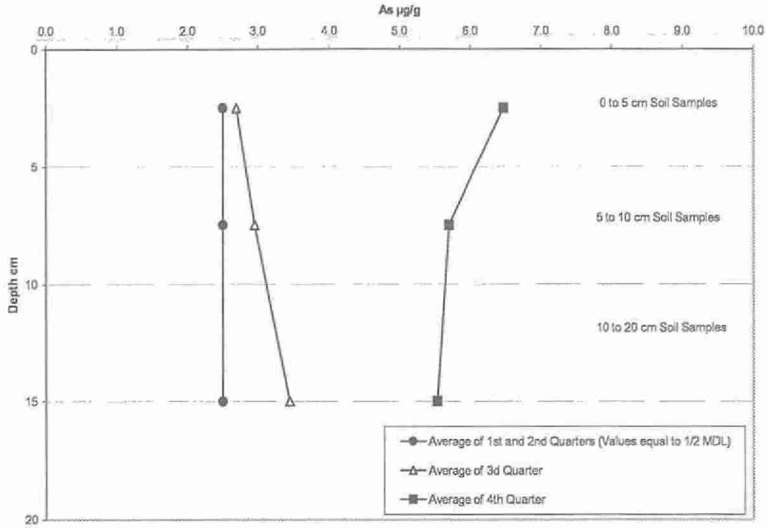


Figure 10.5.1.2: Outer Communities, As depth profiles, all data.

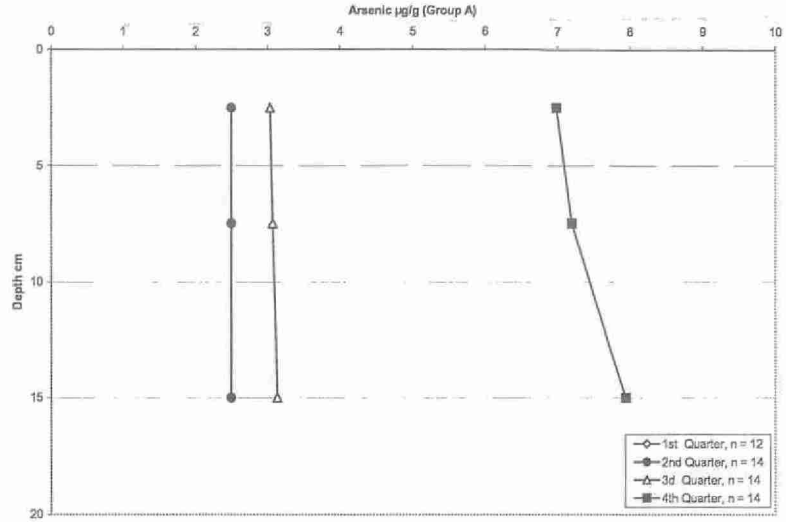


Figure 10.5.1.2a: Outer Communities, As depth profiles, Group A data.

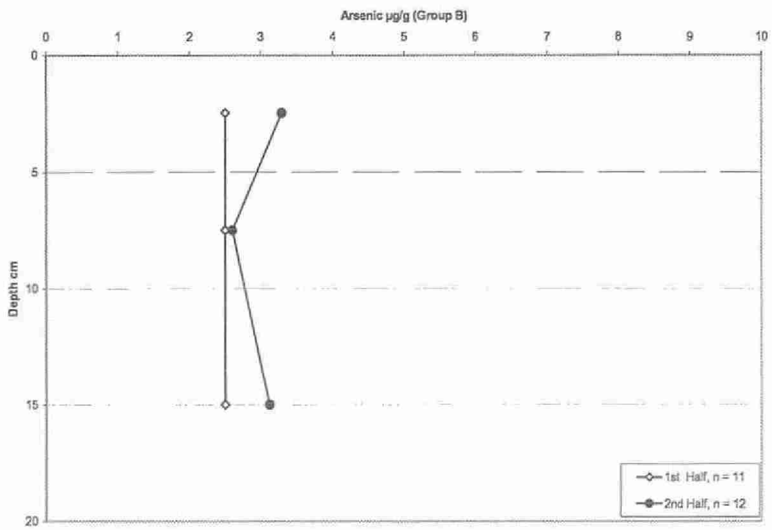


Figure 10.5.1.2b: Outer Communities, As depth profiles, Group B data.

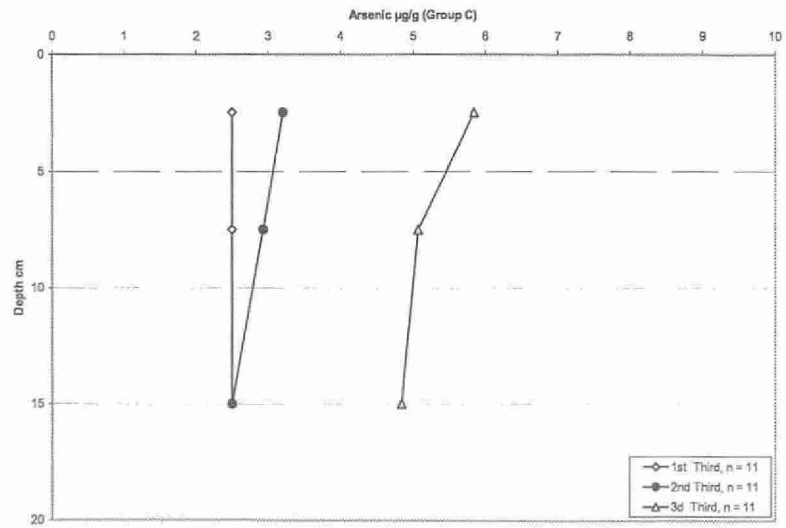


Figure 10.5.1.2c: Outer Communities, As depth profiles, Group C data.

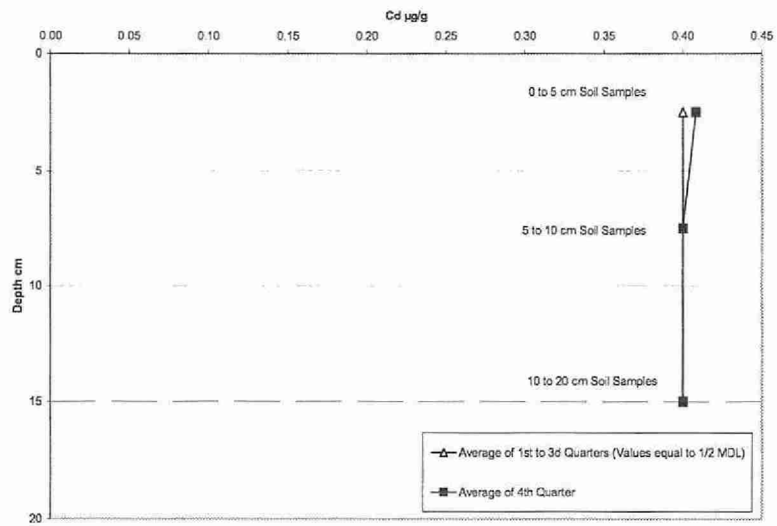


Figure 10.5.1.3: Outer Communities, Cd depth profiles, all data.

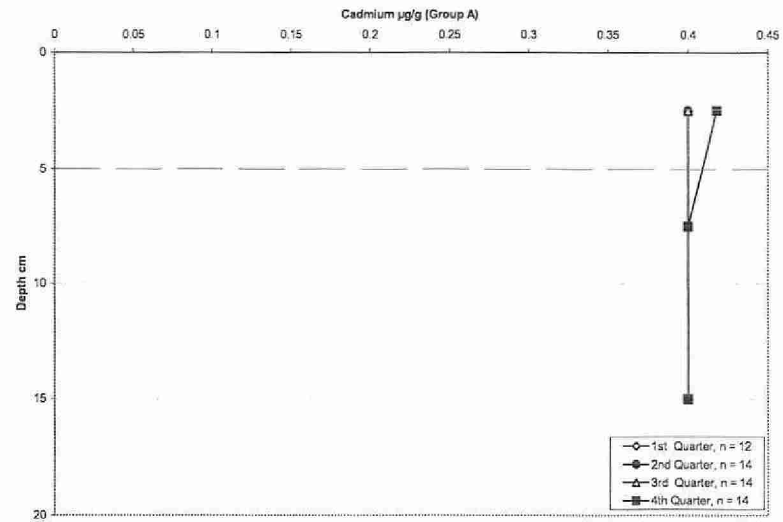


Figure 10.5.1.3a: Outer Communities, Cd depth profiles, Group A data.

Comment: Plots for Cd depth profiles for Group B & Group C equal 0.4 µg/g (½ MDL).

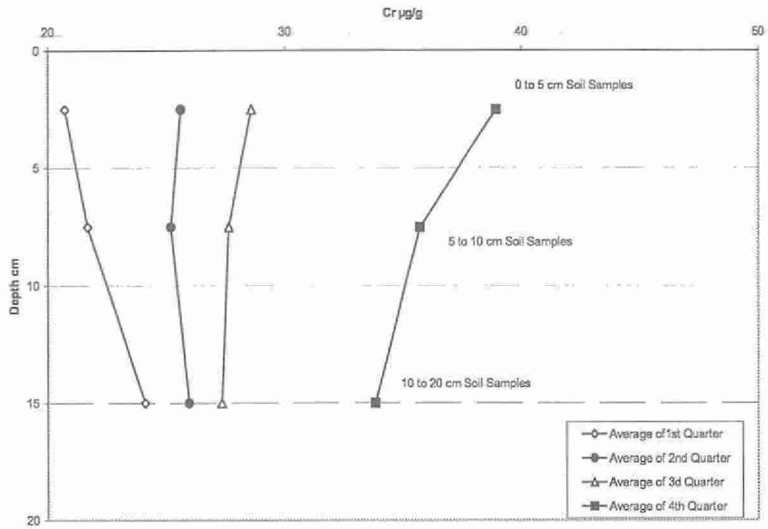


Figure 10.5.1.4: Outer Communities, Cr depth profiles, all data.

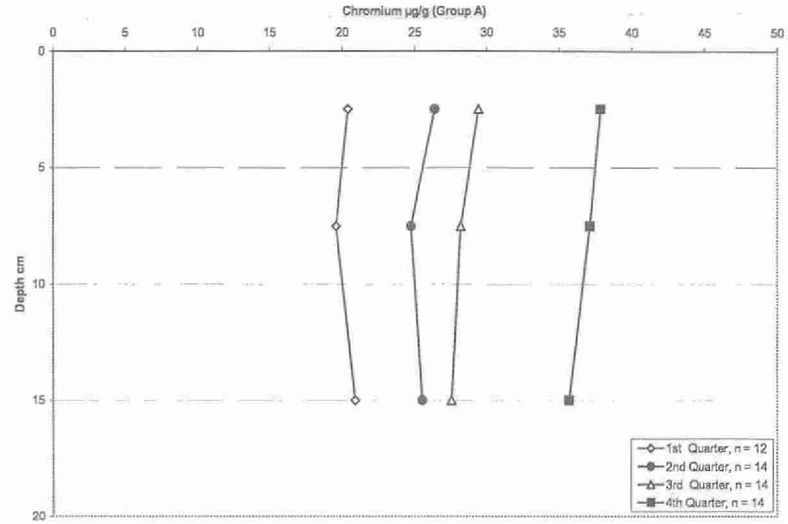


Figure 10.5.1.4a: Outer Communities, Cr depth profiles, Group A data.

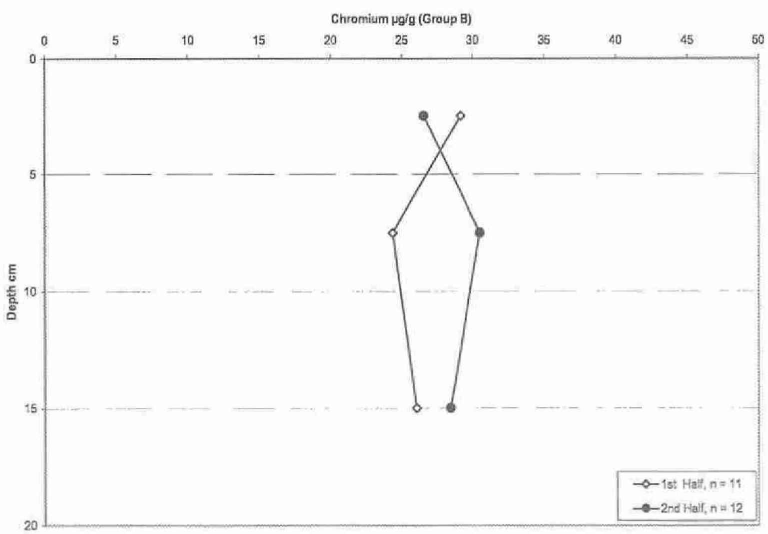


Figure 10.5.1.4b: Outer Communities, Cr depth profiles, Group B data.

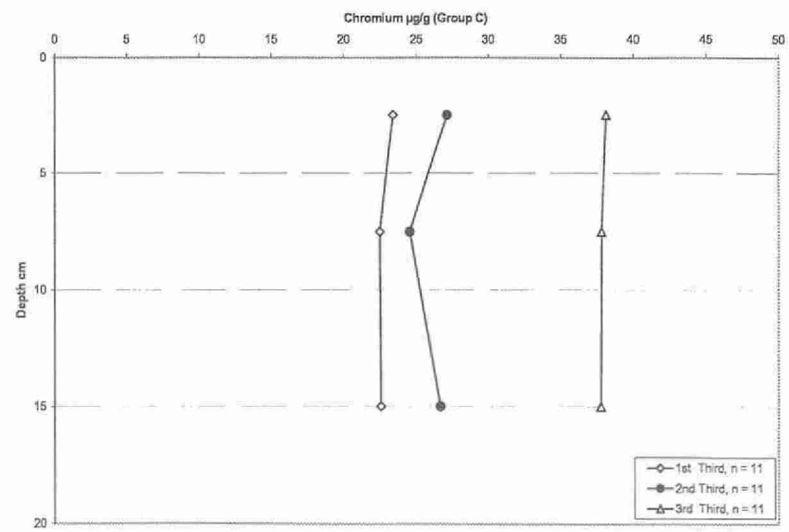


Figure 10.5.1.4c: Outer Communities, Cr depth profiles, Group C data.

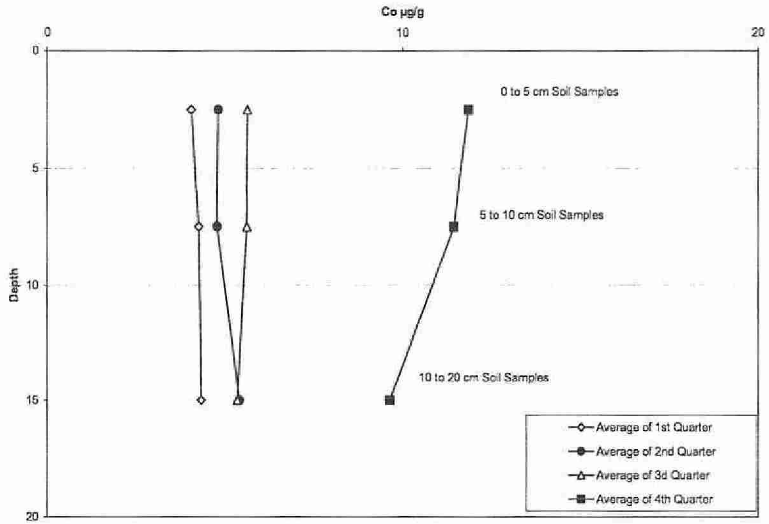


Figure 10.5.1.5: Outer Communities, Co depth profiles, all data.

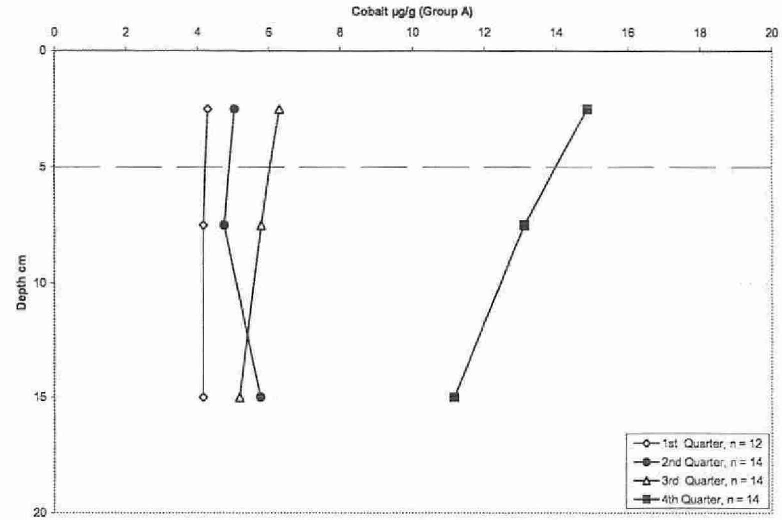


Figure 10.5.1.5a: Outer Communities, Co depth profiles, Group A data.

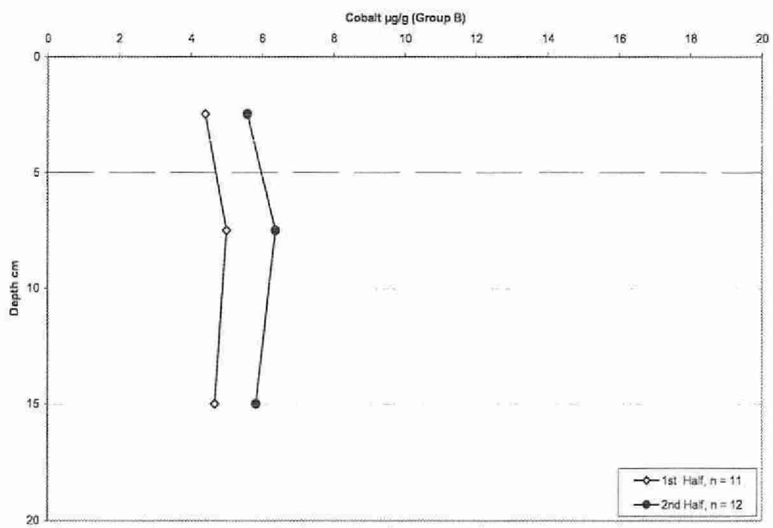


Figure 10.5.1.5b: Outer Communities, Co depth profiles, Group B data.

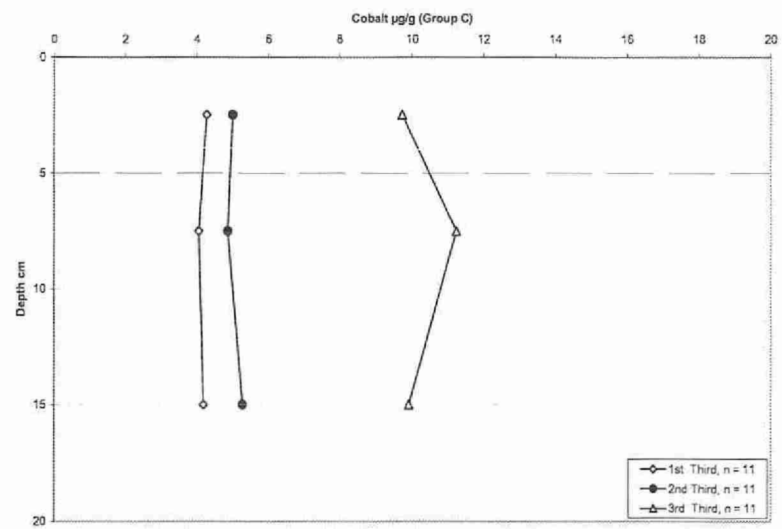


Figure 10.5.1.5c: Outer Communities, Co depth profiles, Group C data.

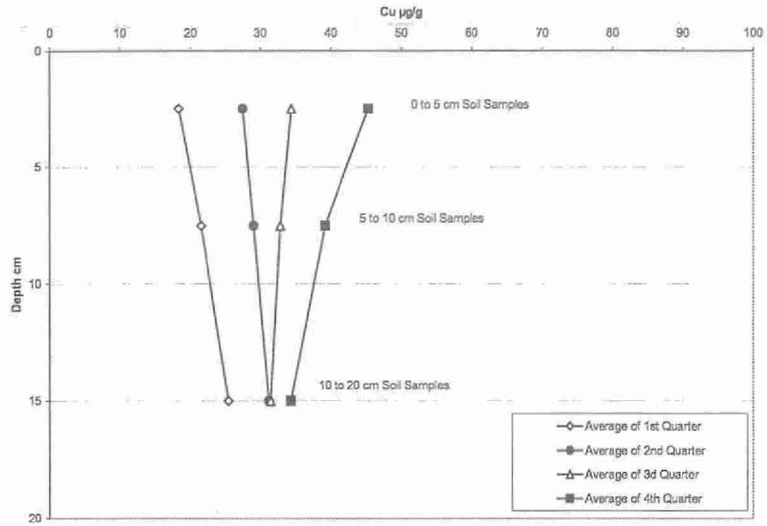


Figure 10.5.1.6: Outer Communities, Cu depth profiles, all data.

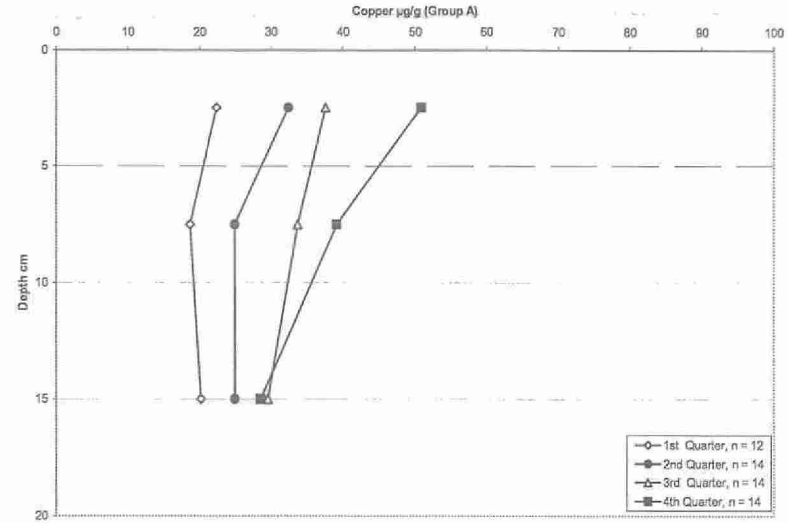


Figure 10.5.1.6a: Outer Communities, Cu depth profiles, Group A data.

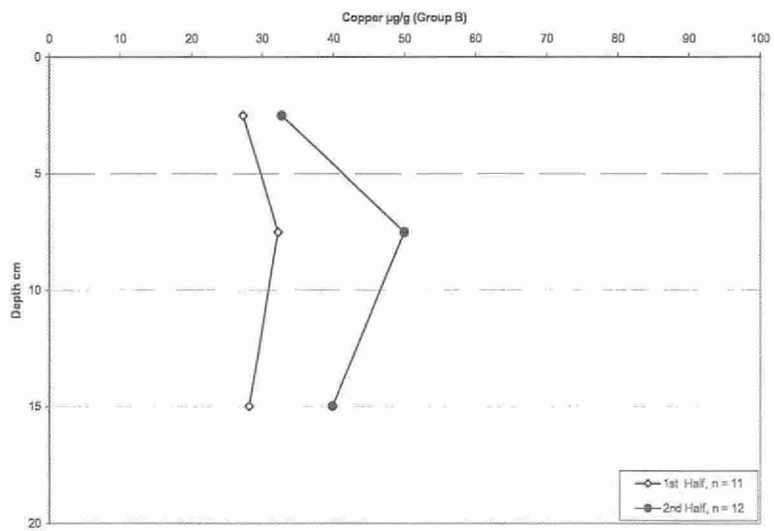


Figure 10.5.1.6b: Outer Communities, Cu depth profiles, Group B data.

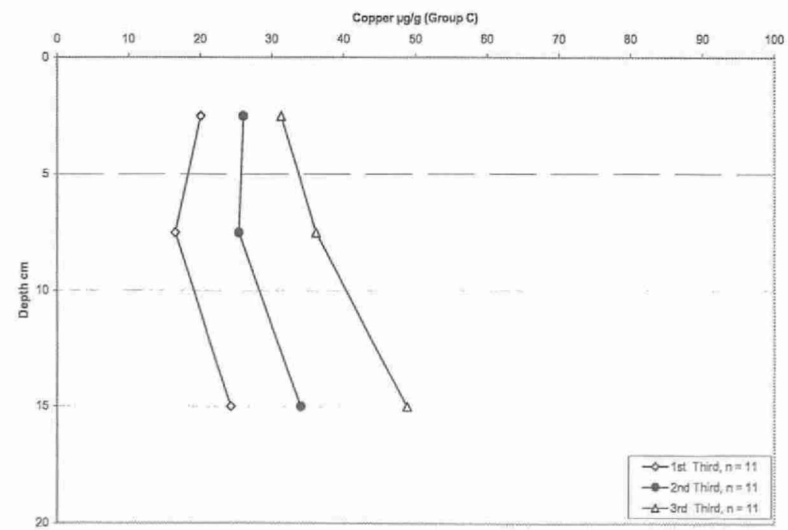


Figure 10.5.1.6c: Outer Communities, Cu depth profiles, Group C data.

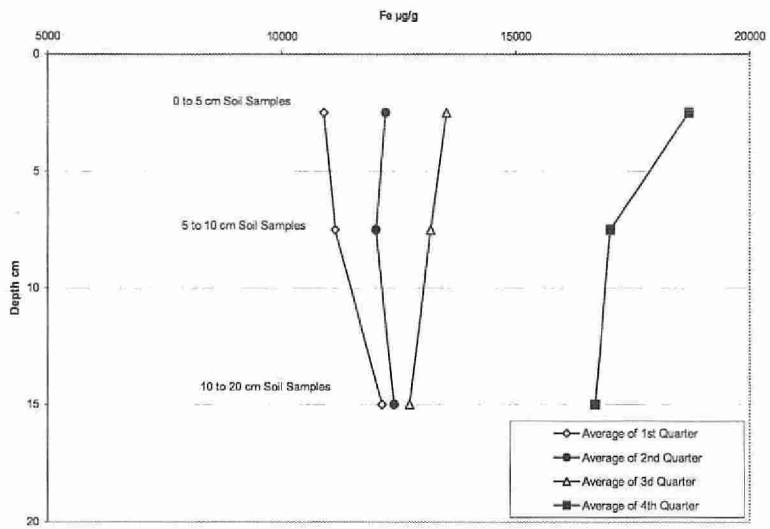


Figure 10.5.1.7: Outer Communities, Fe depth profiles, all data.

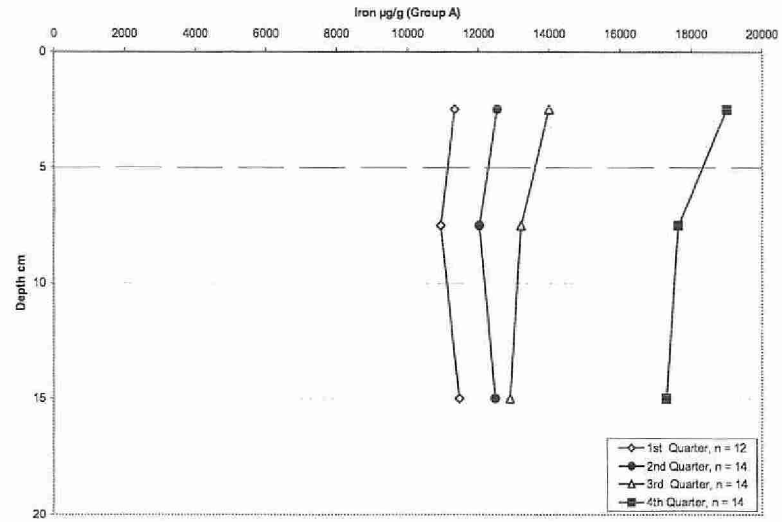


Figure 10.5.1.7a: Outer Communities, Fe depth profiles, Group A data.

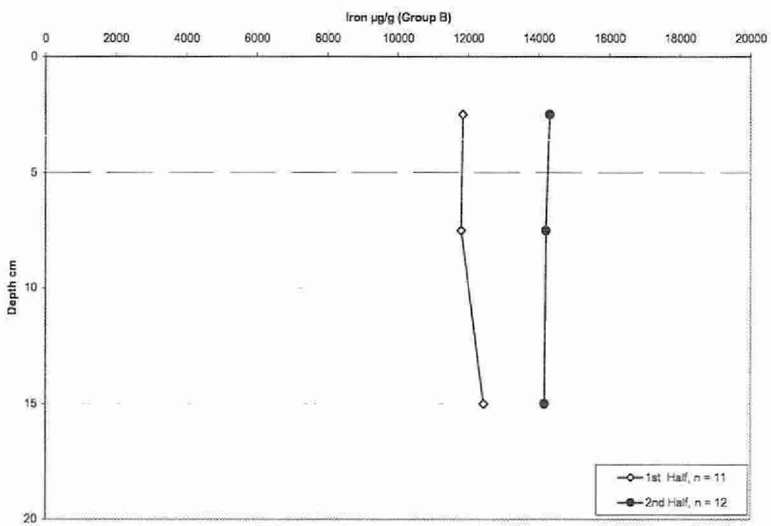


Figure 10.5.1.7b: Outer Communities, Fe depth profiles, Group B data.

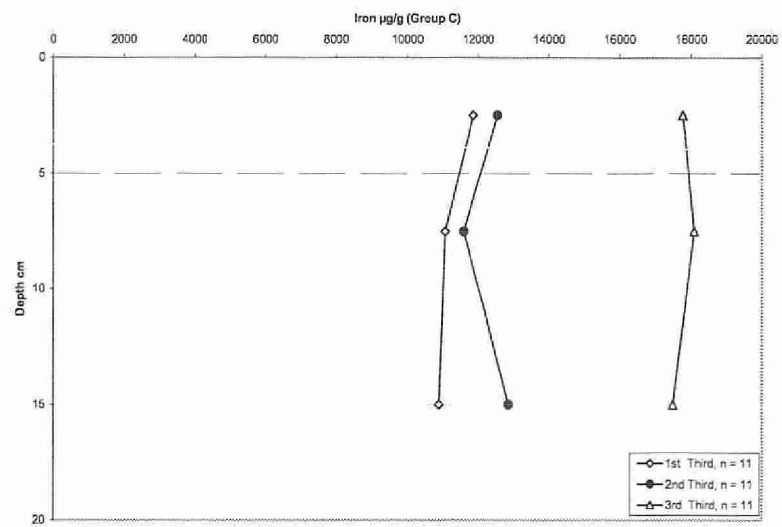


Figure 10.5.1.7c: Outer Communities, Fe depth profiles, Group C data.

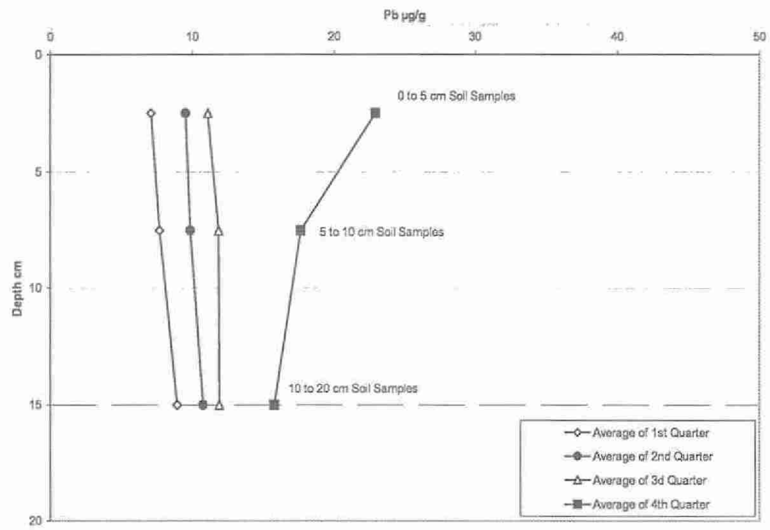


Figure 10.5.1.8: Outer Communities, Pb depth profiles, all data.

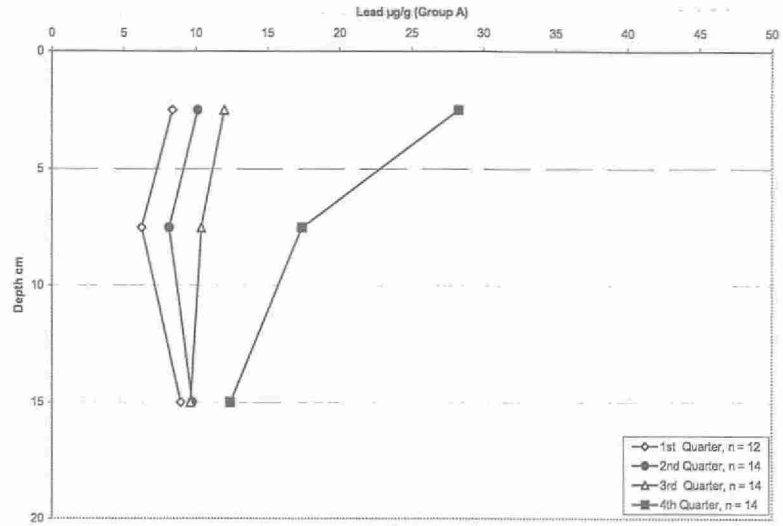


Figure 10.5.1.8a: Outer Communities, Pb depth profiles, Group A data.

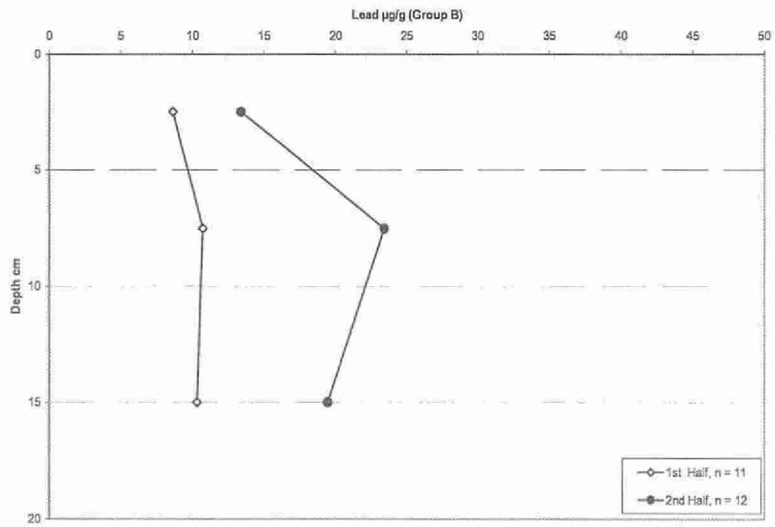


Figure 10.5.1.8b: Outer Communities, Pb depth profiles, Group B data.

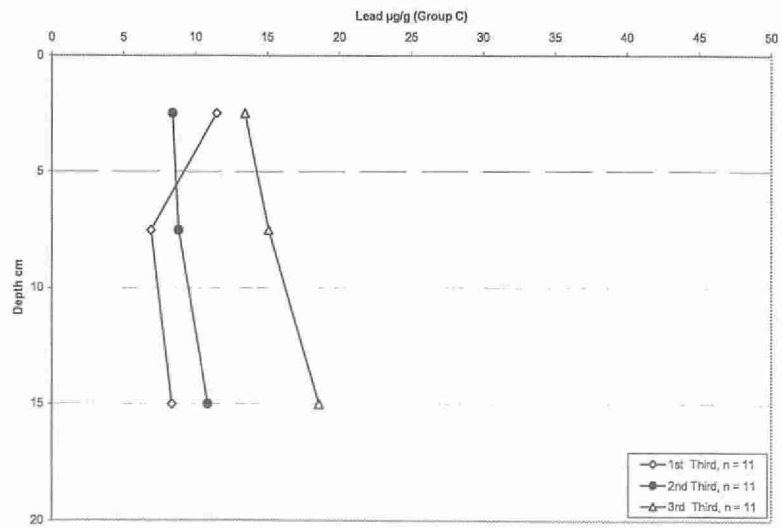


Figure 10.5.1.8c: Outer Communities, Pb depth profiles, Group C data.

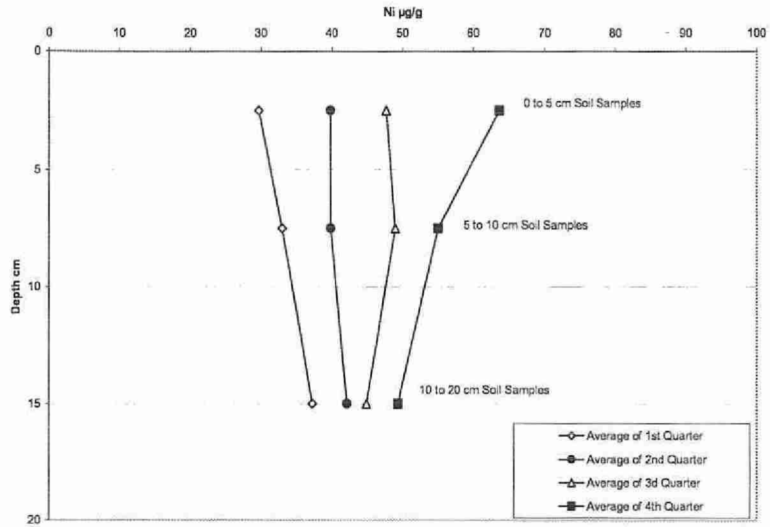


Figure 10.5.1.9: Outer Communities, Ni depth profiles, all data.

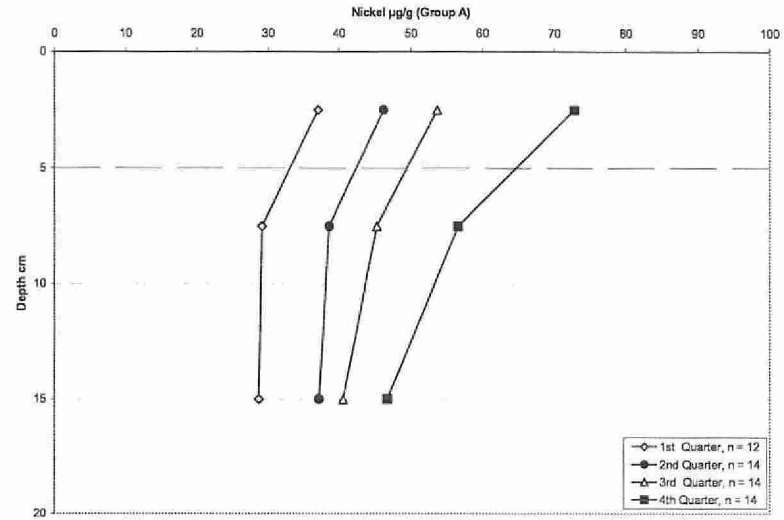


Figure 10.5.1.9a: Outer Communities, Ni depth profiles, Group A data.

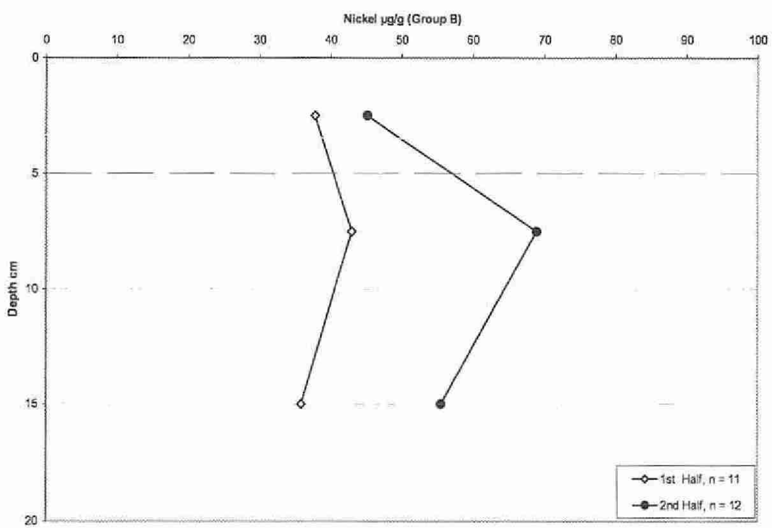


Figure 10.5.1.9b: Outer Communities, Ni depth profiles, Group B data.

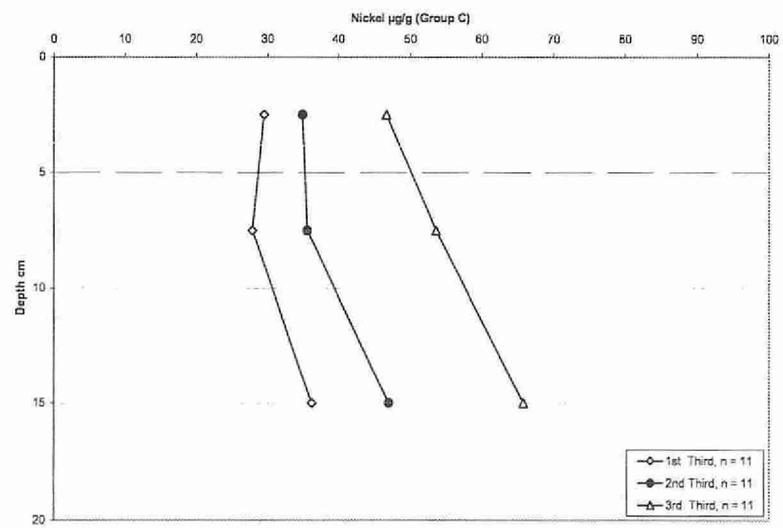


Figure 10.5.1.9c: Outer Communities, Ni depth profiles, Group C data.

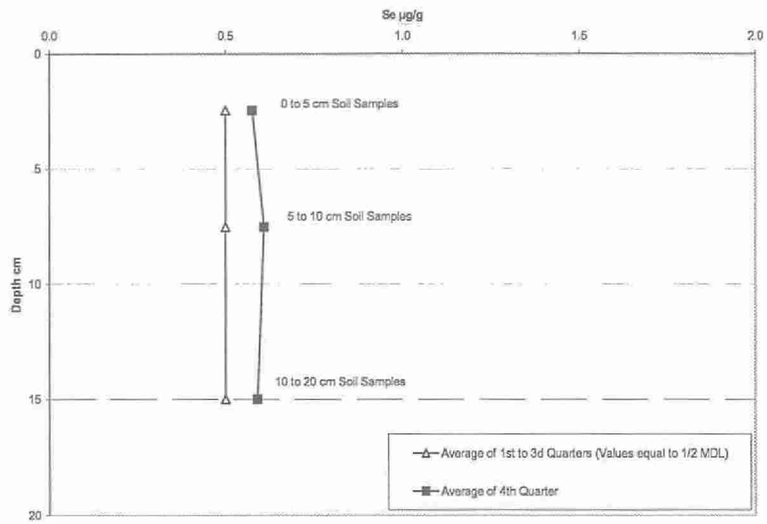


Figure 10.5.1.10: Outer Communities, Se depth profiles, all data.

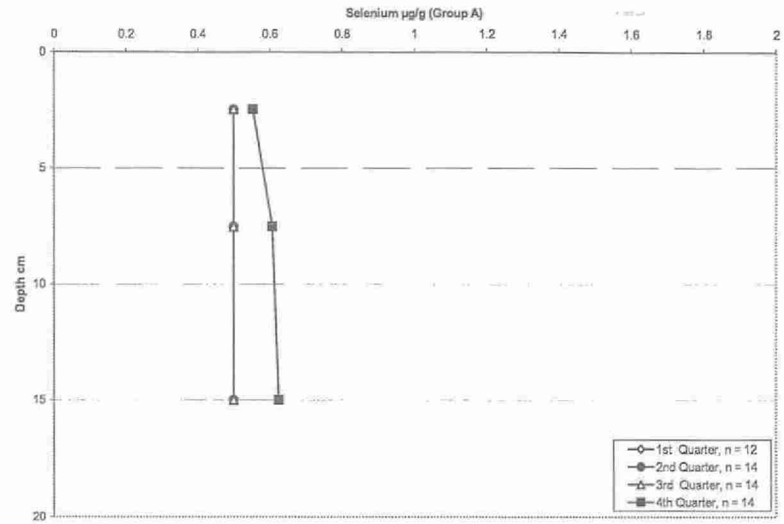


Figure 10.5.1.10a: Outer Communities, Se depth profiles, Group A data.

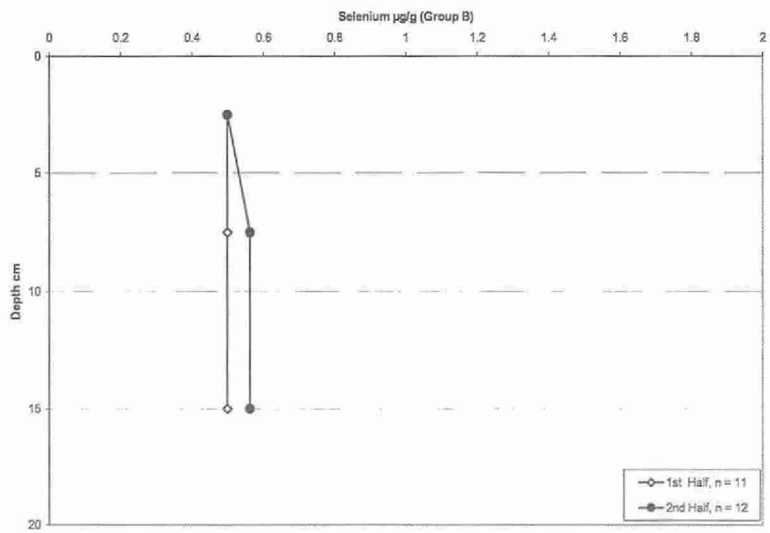


Figure 10.5.1.10b: Outer Communities, Se depth profiles, Group B data.

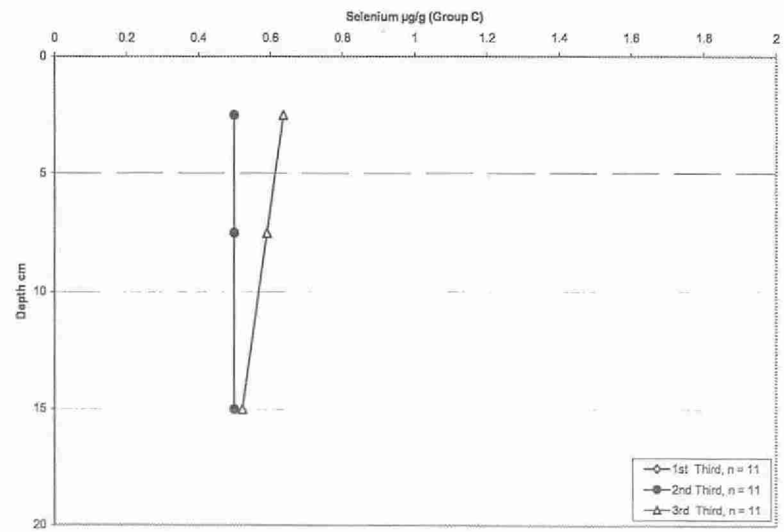


Figure 10.5.1.10c: Outer Communities, Se depth profiles, Group C data.

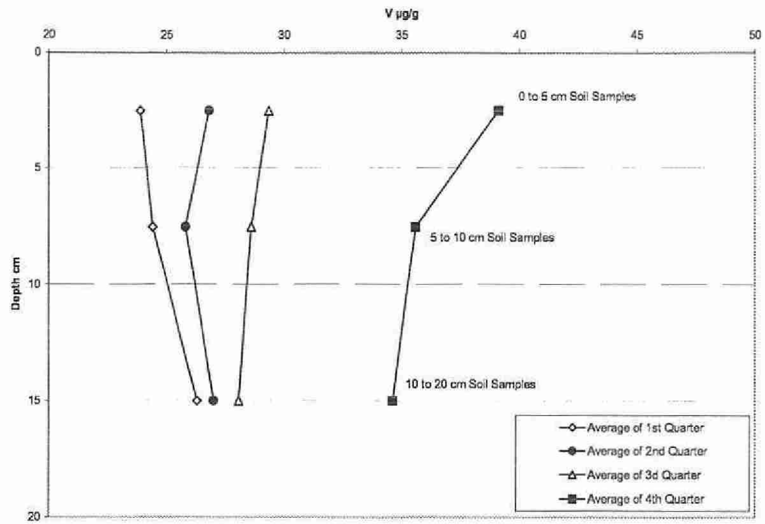


Figure 10.5.1.11: Outer Communities, V depth profiles, all data.

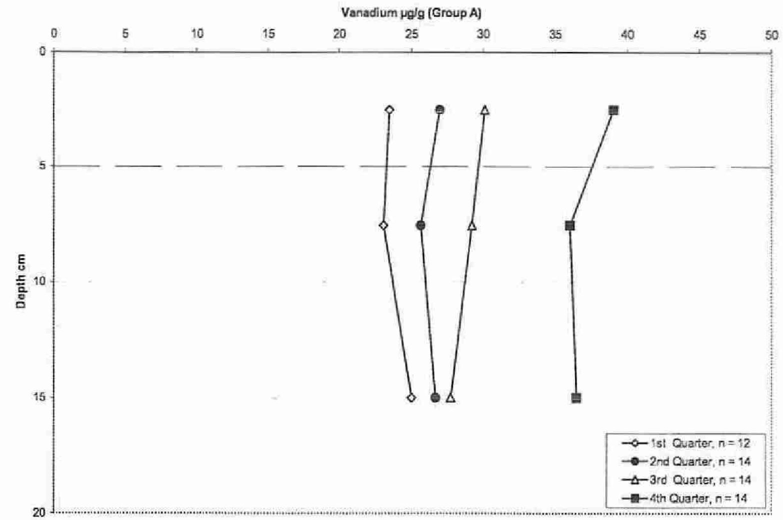


Figure 10.5.1.11a: Outer Communities, V depth profiles, Group A data.

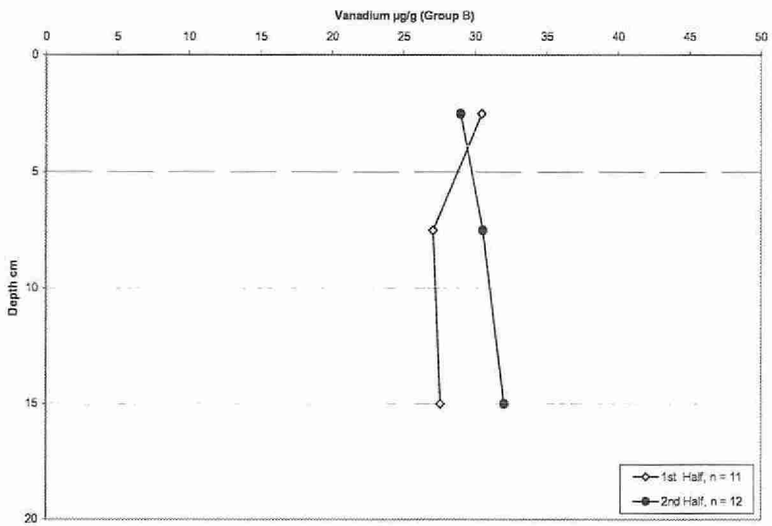


Figure 10.5.1.11b: Outer Communities, V depth profiles, Group B data.

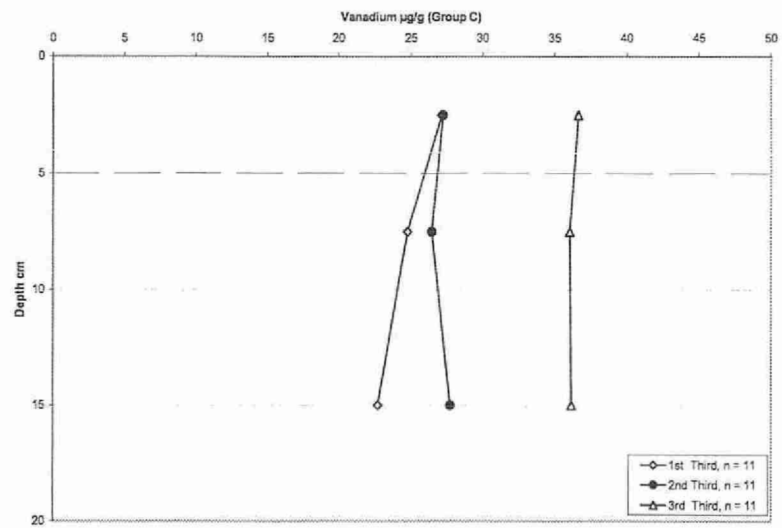


Figure 10.5.1.11c: Outer Communities, V depth profiles, Group C data.

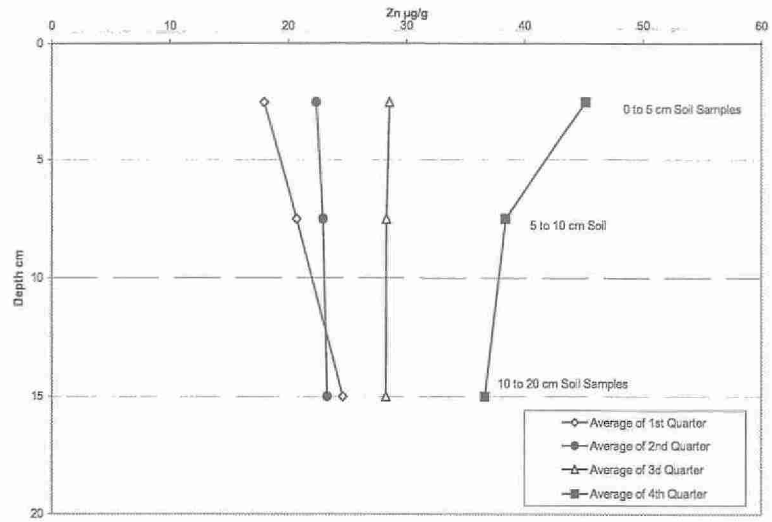


Figure 10.5.1.12: Outer Communities, Zn depth profiles, all data.

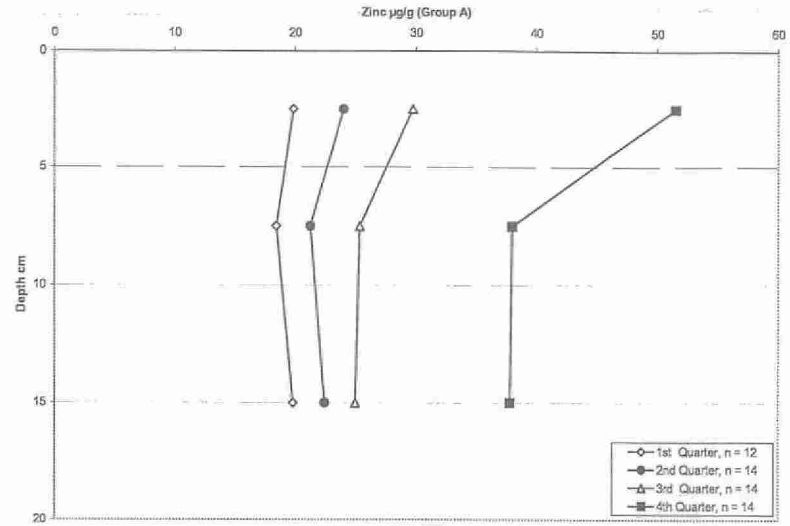


Figure 10.5.1.12a: Outer Communities, Zn depth profiles, Group A data.

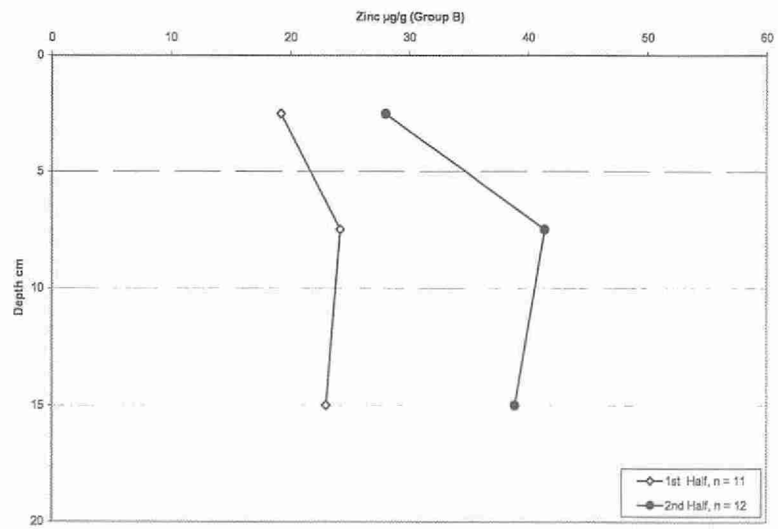


Figure 10.5.1.12b: Outer Communities, Zn depth profiles, Group B data.

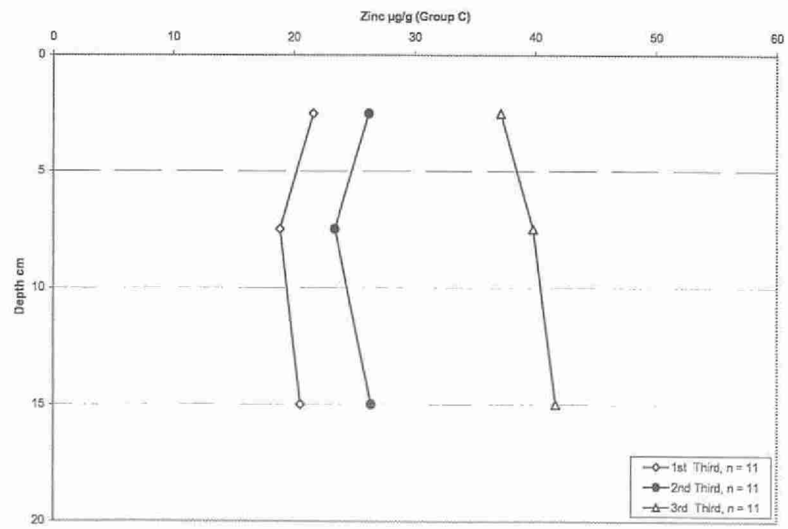


Figure 10.5.1.12c: Outer Communities, Zn depth profiles, Group C data.

10.5.2 Inner Sudbury Communities

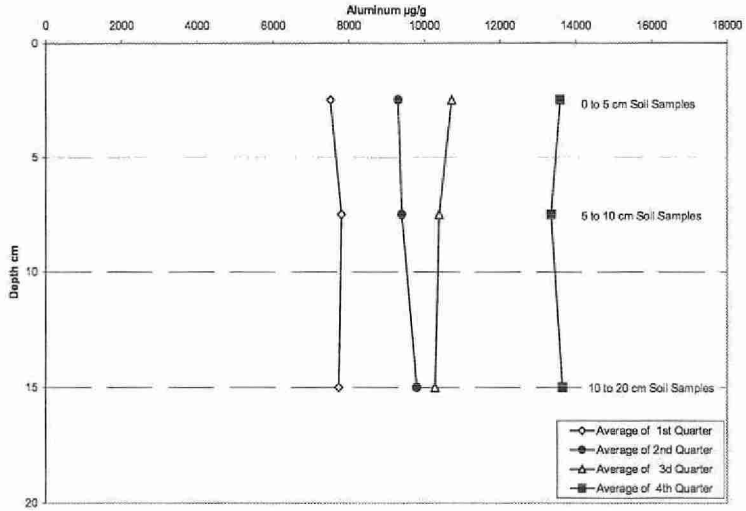


Figure 10.5.2.1: Inner Communities, Al depth profiles, all data.

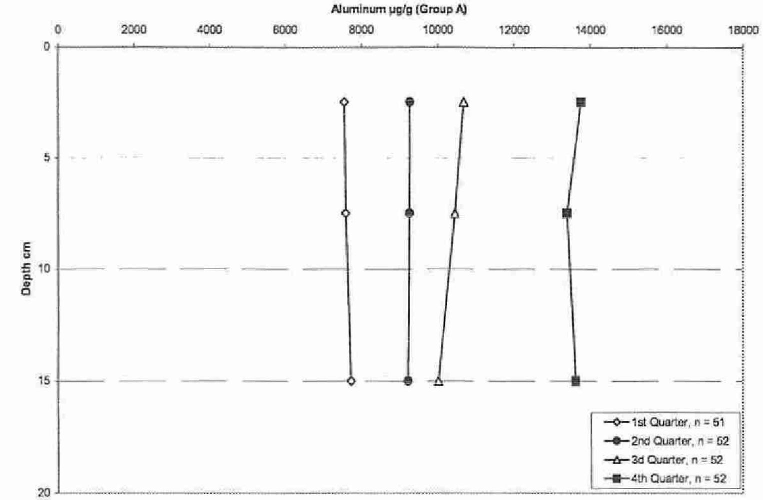


Figure 10.5.2.1a: Inner Communities, Al depth profiles, Group A data.

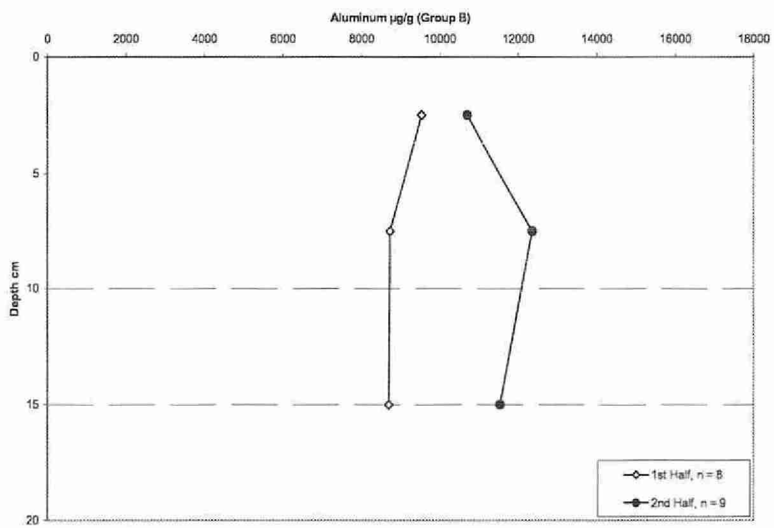


Figure 10.5.2.1b: Inner Communities, Al depth profiles, Group B data.

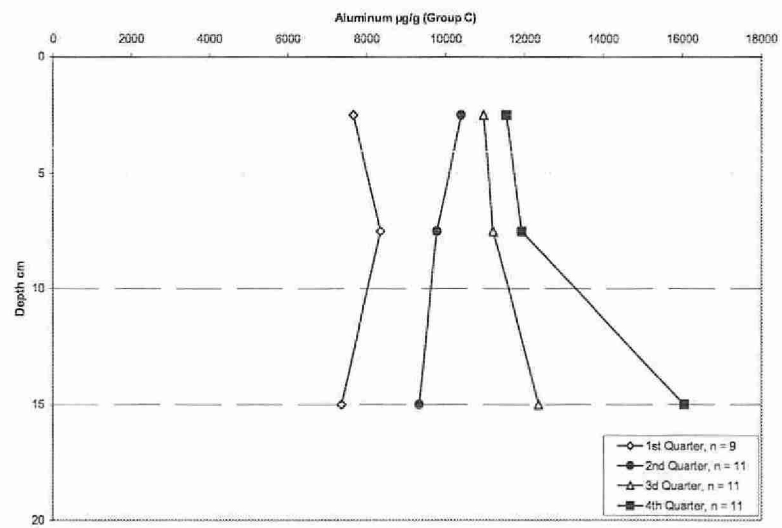


Figure 10.5.2.1c: Inner Communities, Al depth profiles, Group C data.

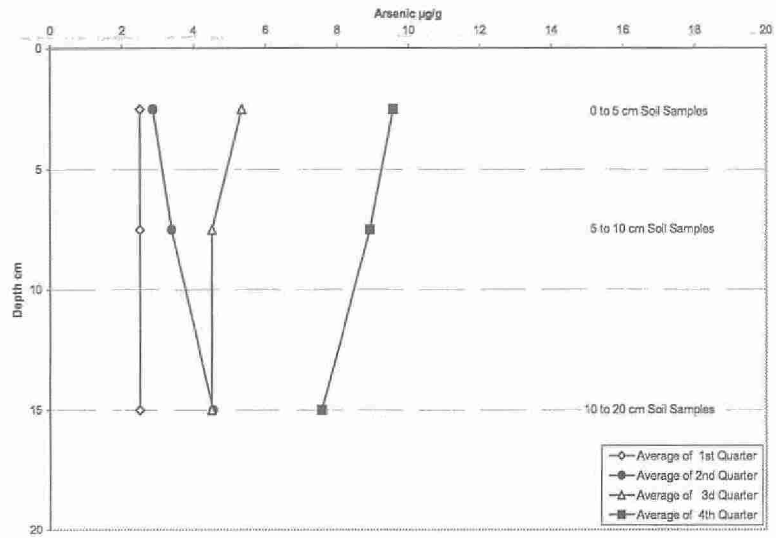


Figure 10.5.2.2: Inner Communities, As depth profiles, all data.

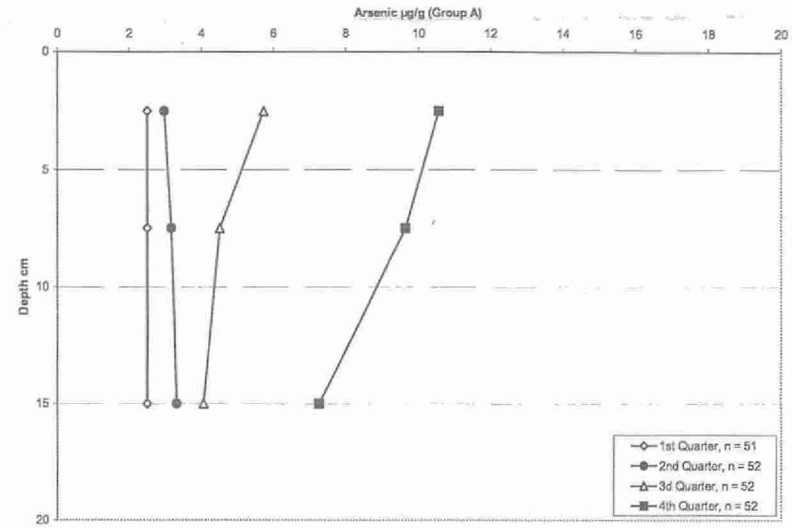


Figure 10.5.2.2a: Inner Communities, As depth profiles, Group A data.

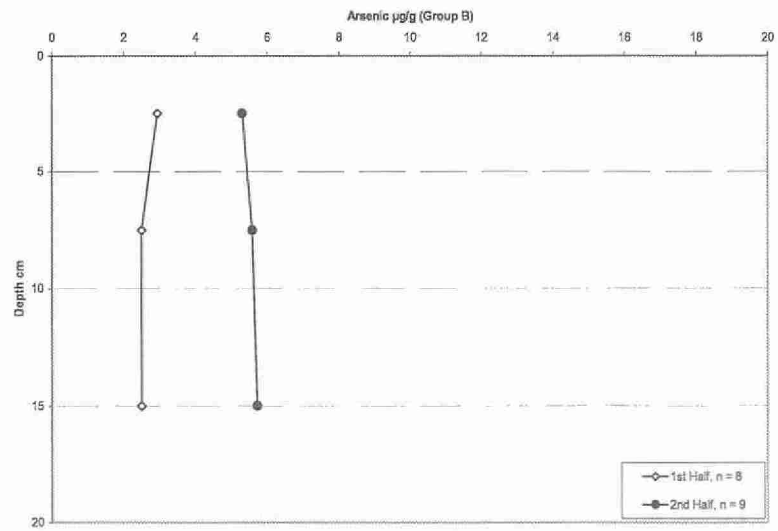


Figure 10.5.2.2b: Inner Communities, As depth profiles, Group B data.

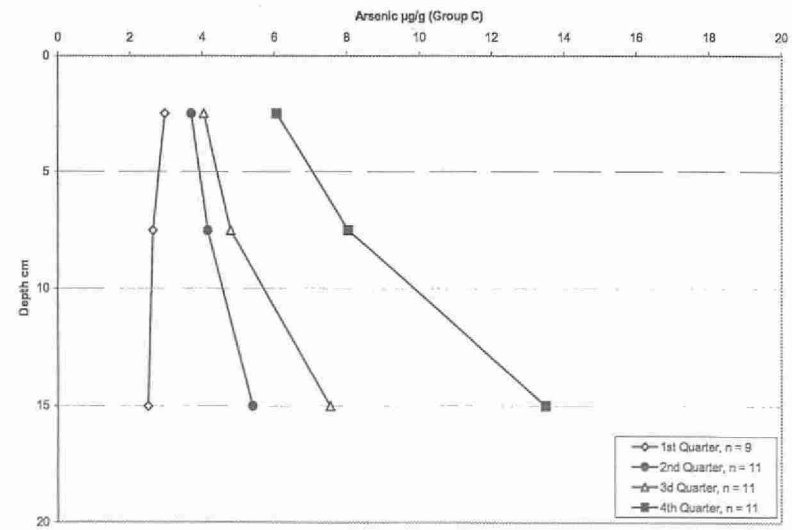


Figure 10.5.2.2c: Inner Communities, As depth profiles, Group C data.

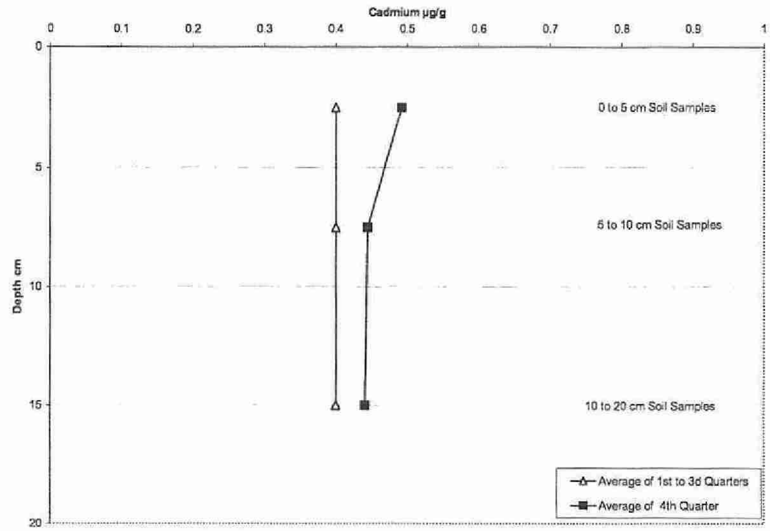


Figure 10.5.2.3: Inner Communities, Cd depth profiles, all data.

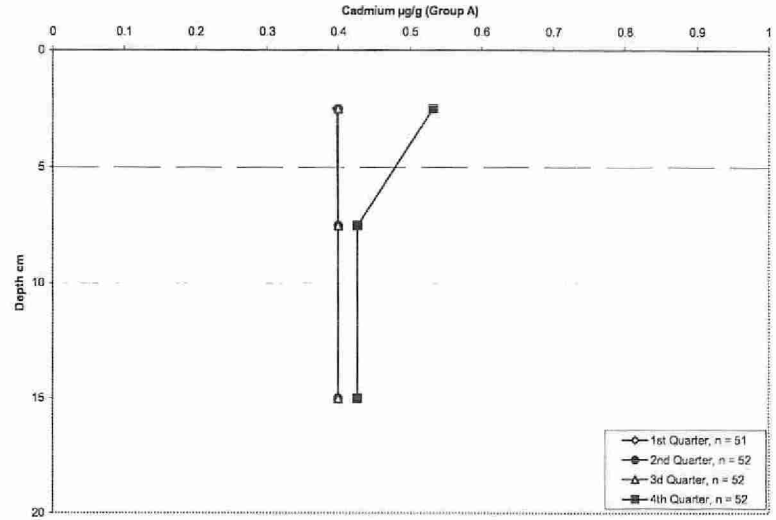


Figure 10.5.2.3a: Inner Communities, Cd depth profiles, Group A data.

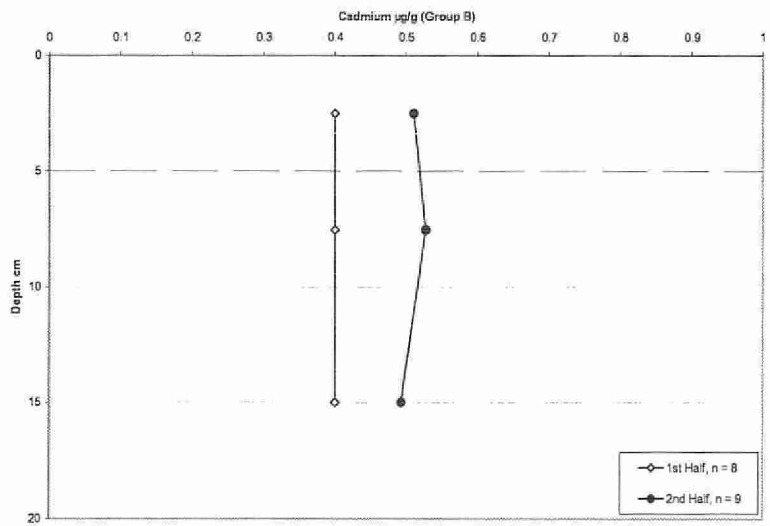


Figure 10.5.2.3b: Inner Communities, Cd depth profiles, Group B data.

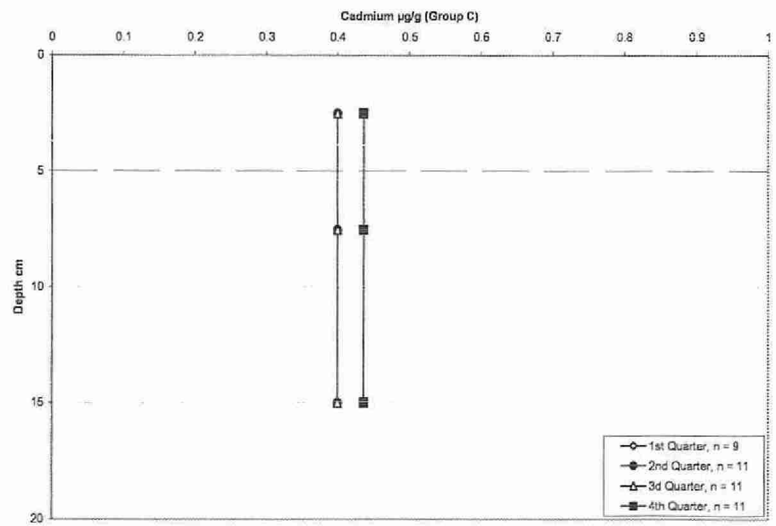


Figure 10.5.2.3c: Inner Communities, Cd depth profiles, Group C data.

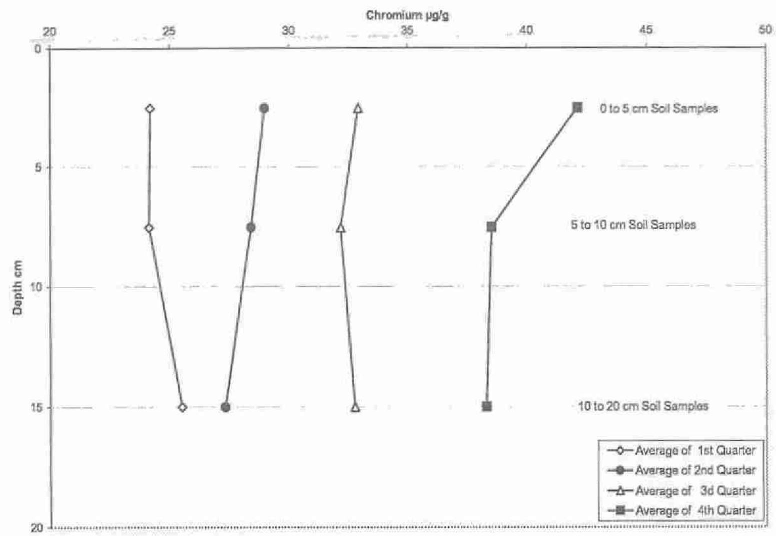


Figure 10.5.2.4: Inner Communities, Cr depth profiles, all data.

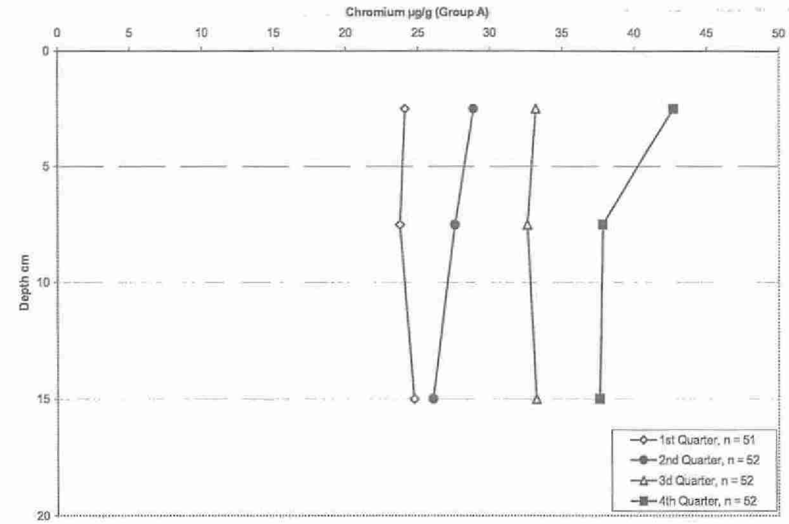


Figure 10.5.2.4a: Inner Communities, Cr depth profiles, Group A data.

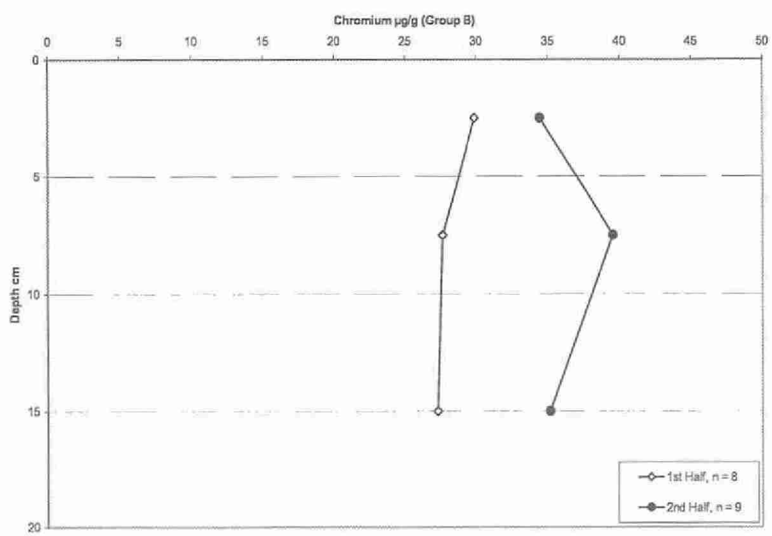


Figure 10.5.2.4b: Inner Communities, Cr depth profiles, Group B data.

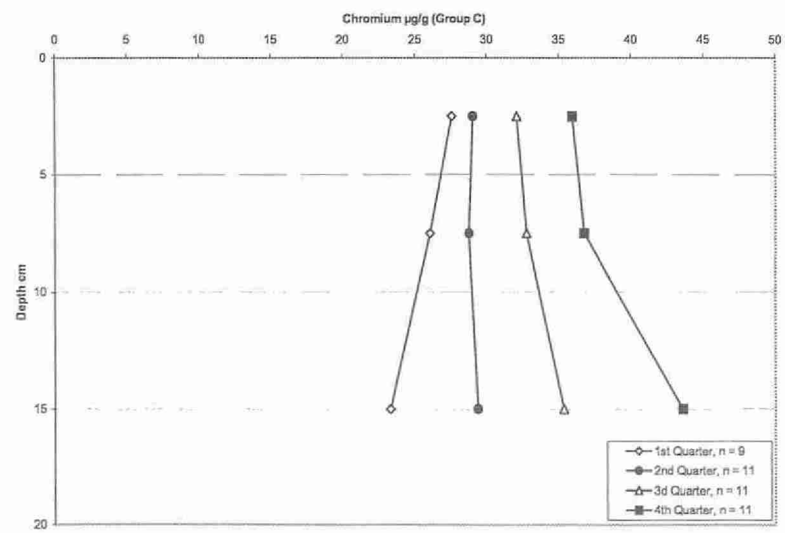


Figure 10.5.2.4c: Inner Communities, Cr depth profiles, Group C data.

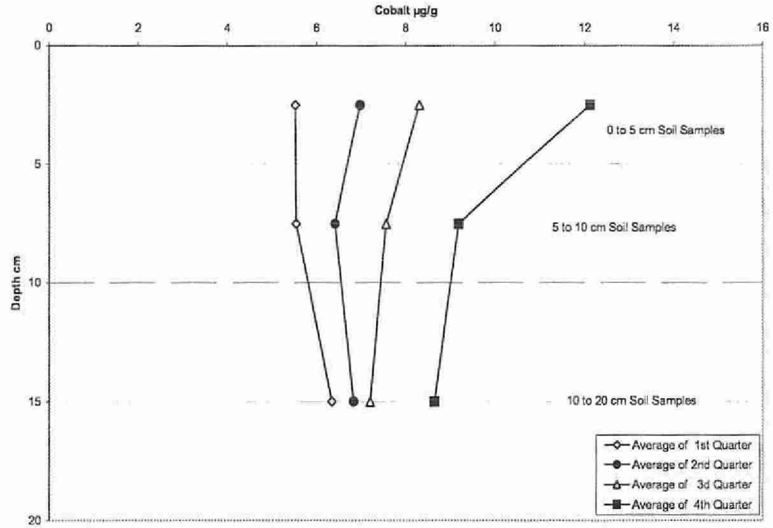


Figure 10.5.2.5: Inner Communities, Co depth profiles, all data.

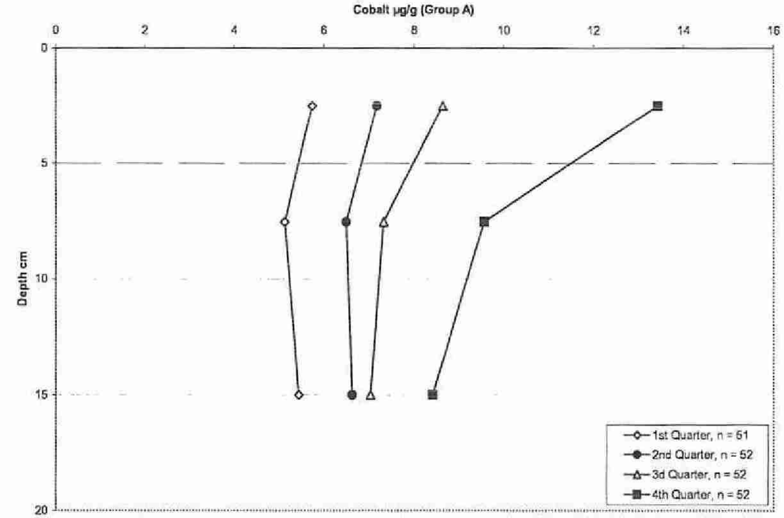


Figure 10.5.2.5a: Inner Communities, Co depth profiles, Group A data.

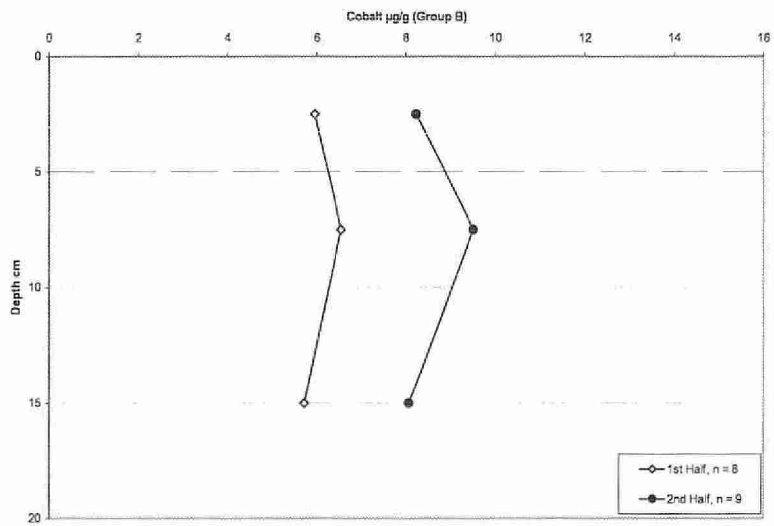


Figure 10.5.2.5b: Inner Communities, Co depth profiles, Group B data.

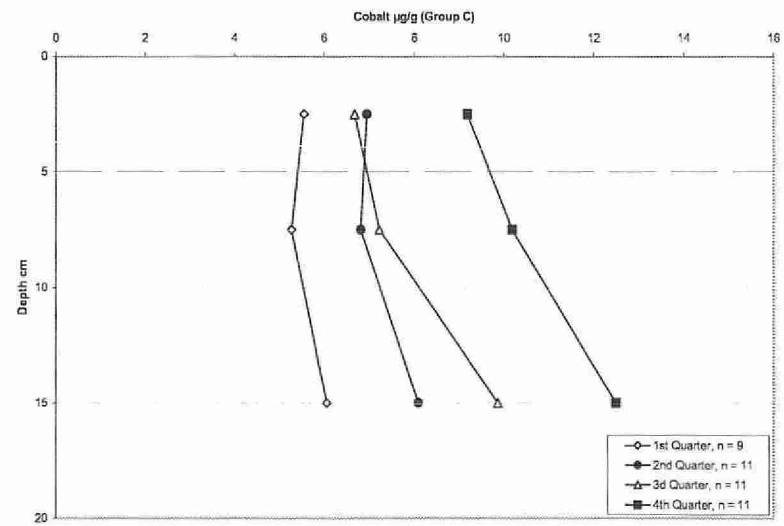


Figure 10.5.2.5c: Inner Communities, Co depth profiles, Group C data.

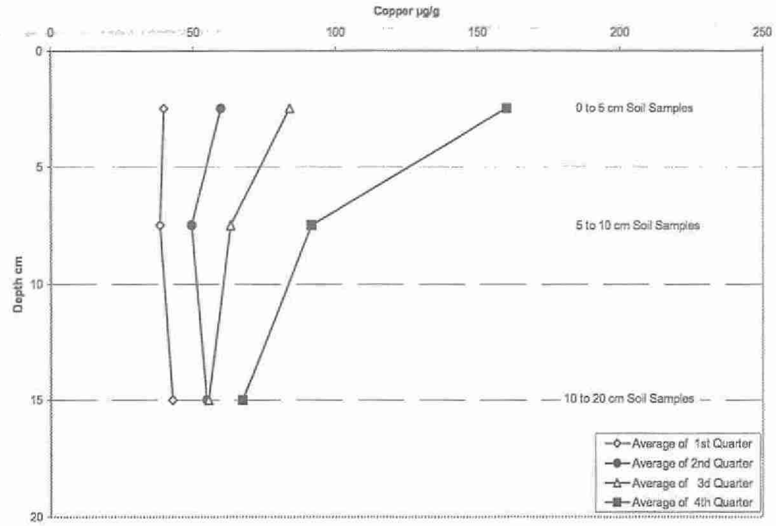


Figure 10.5.2.6: Inner Communities, Cu depth profiles, all data.

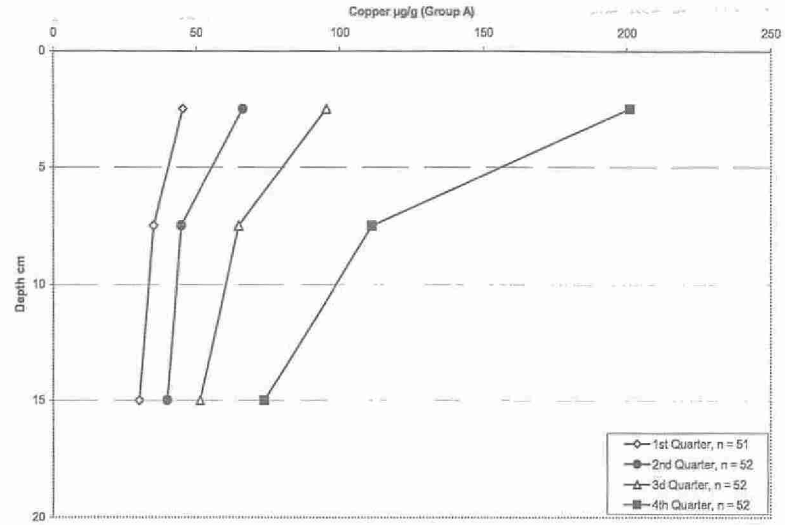


Figure 10.5.2.6a: Inner Communities, Cu depth profiles, Group A data.

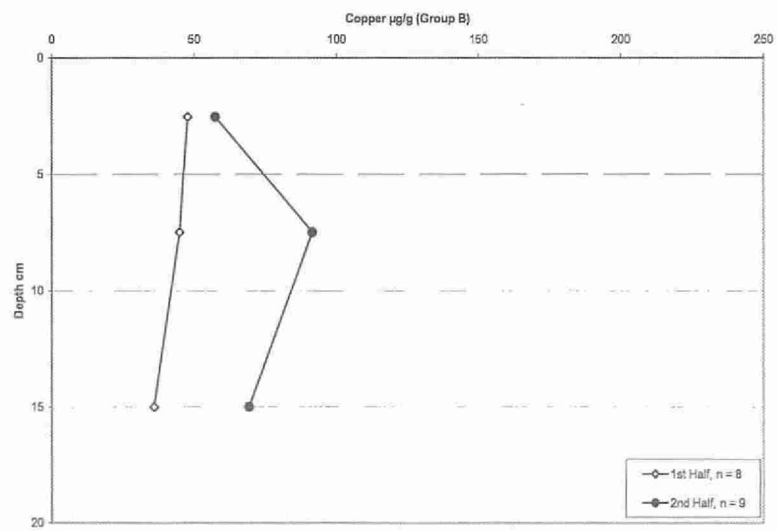


Figure 10.5.2.6b: Inner Communities, Cu depth profiles, Group B data.

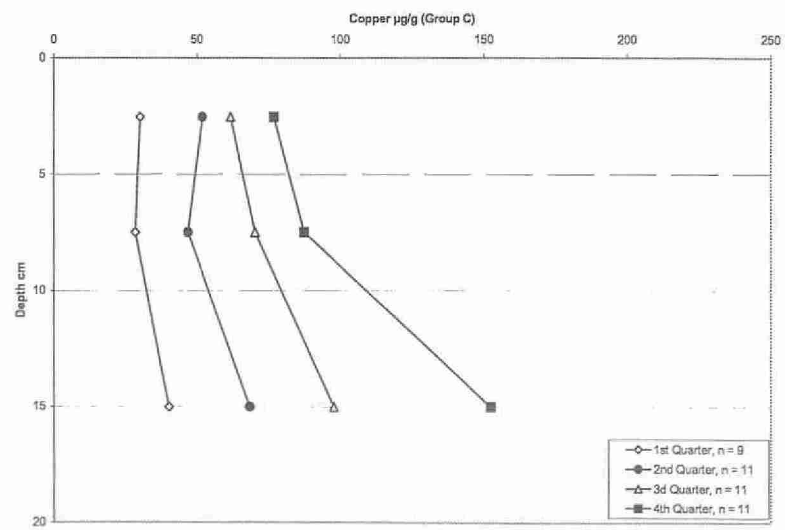


Figure 10.5.2.6c: Inner Communities, Cu depth profiles, Group C data.

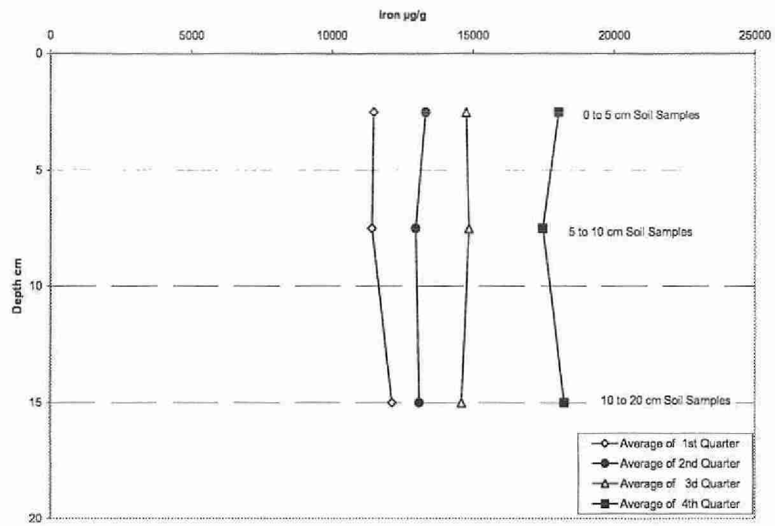


Figure 10.5.2.7: Inner Communities, Fe depth profiles, all data.

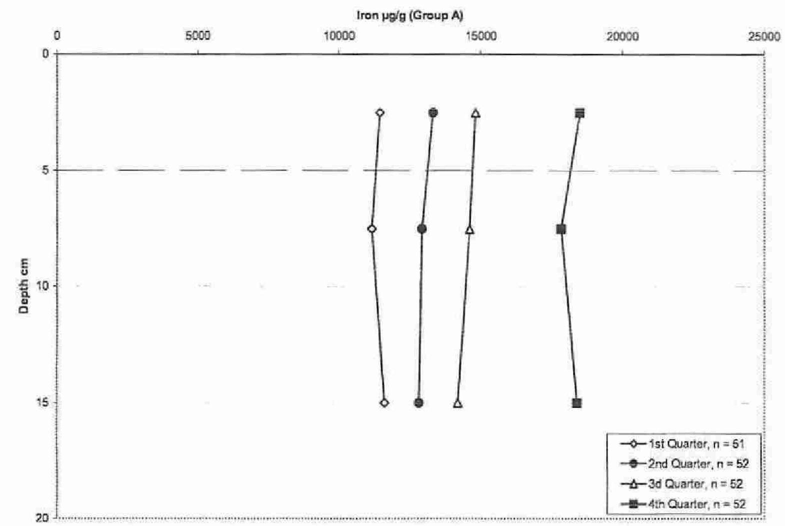


Figure 10.5.2.7a: Inner Communities, Fe depth profiles, Group A data.

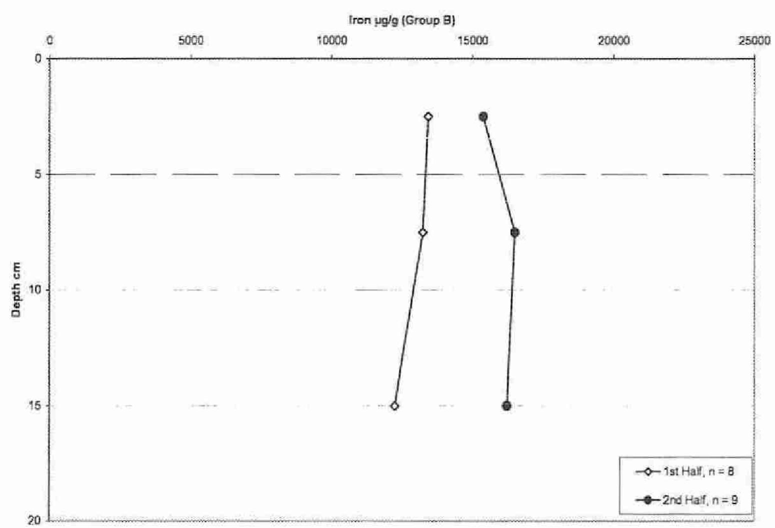


Figure 10.5.2.7b: Inner Communities, Fe depth profiles, Group B data.

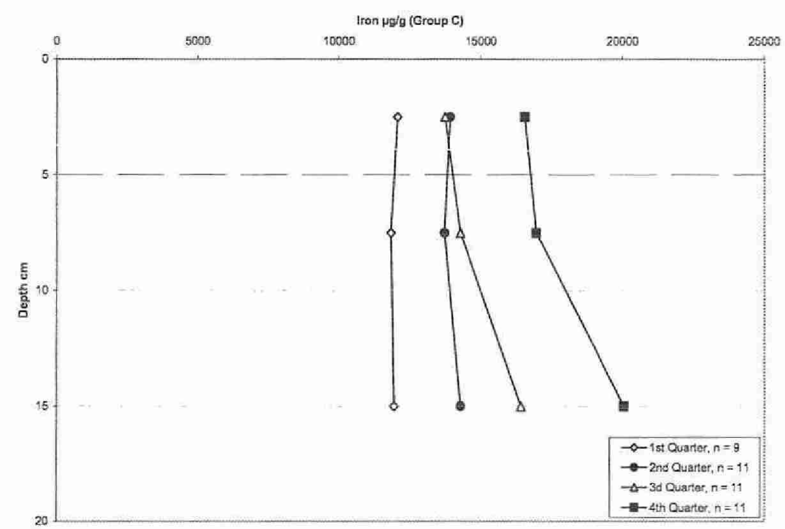


Figure 10.5.2.7c: Inner Communities, Fe depth profiles, Group C data.

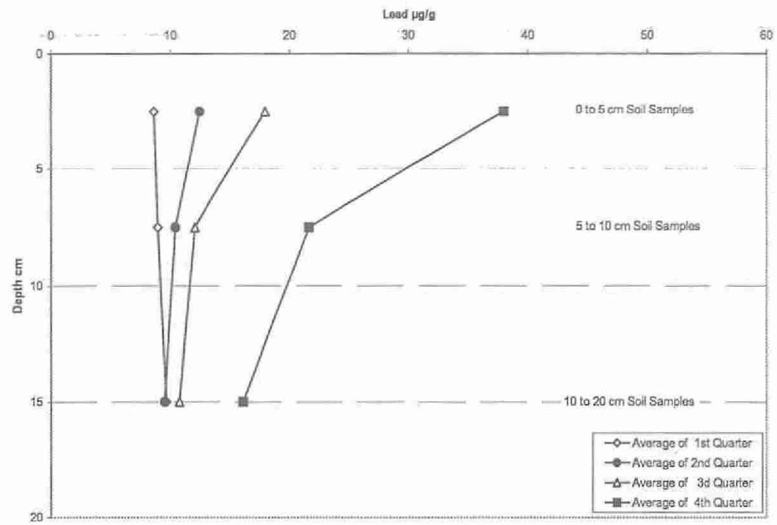


Figure 10.5.2.8: Inner Communities, Pb depth profiles, all data.

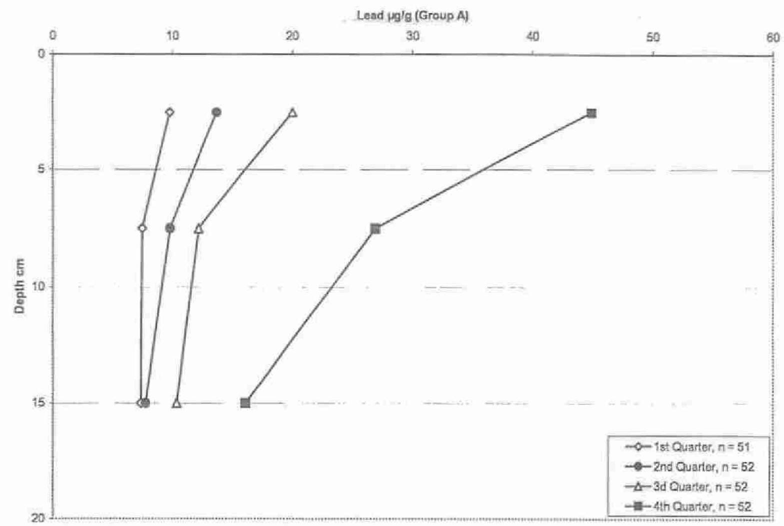


Figure 10.5.2.8a: Inner Communities, Pb depth profiles, Group A data.

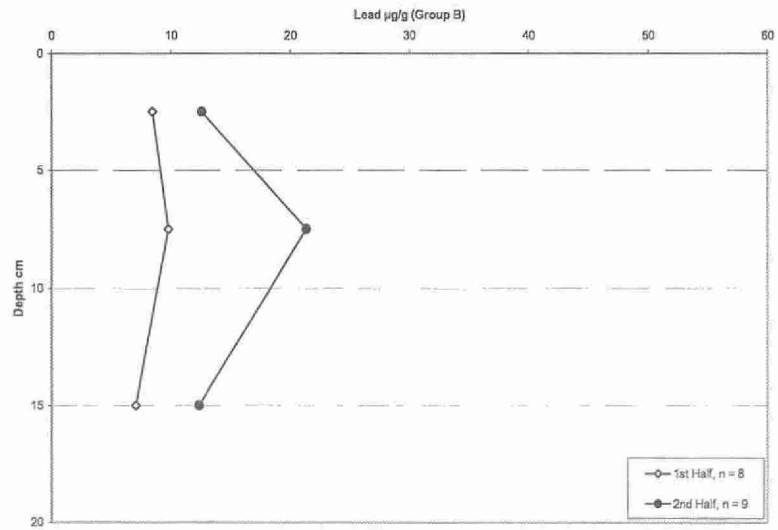


Figure 10.5.2.8b: Inner Communities, Pb depth profiles, Group B data.

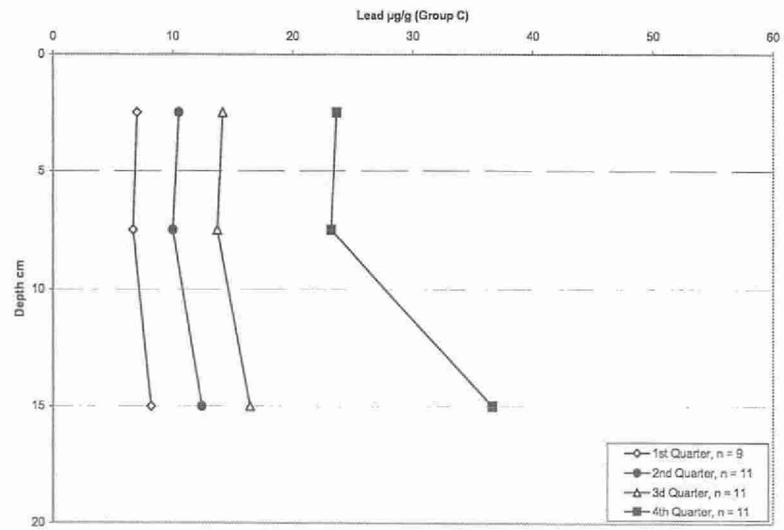


Figure 10.5.2.8c: Inner Communities, Pb depth profiles, Group C data.

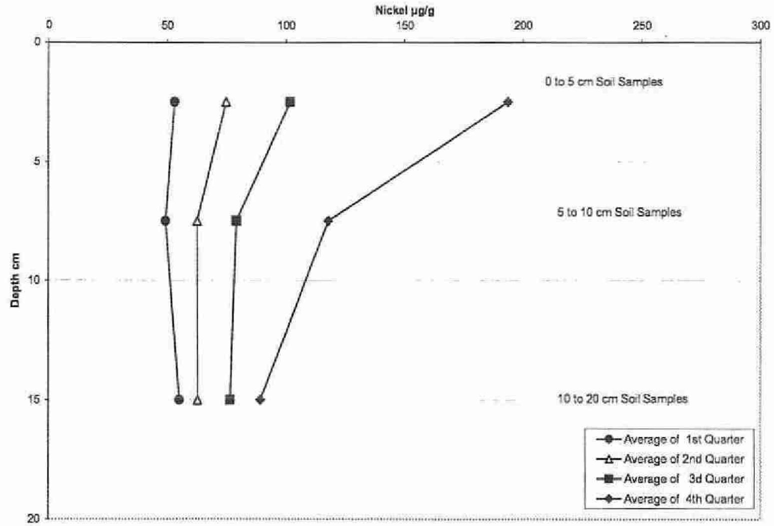


Figure 10.5.2.9: Inner Communities, Ni depth profiles, all data.

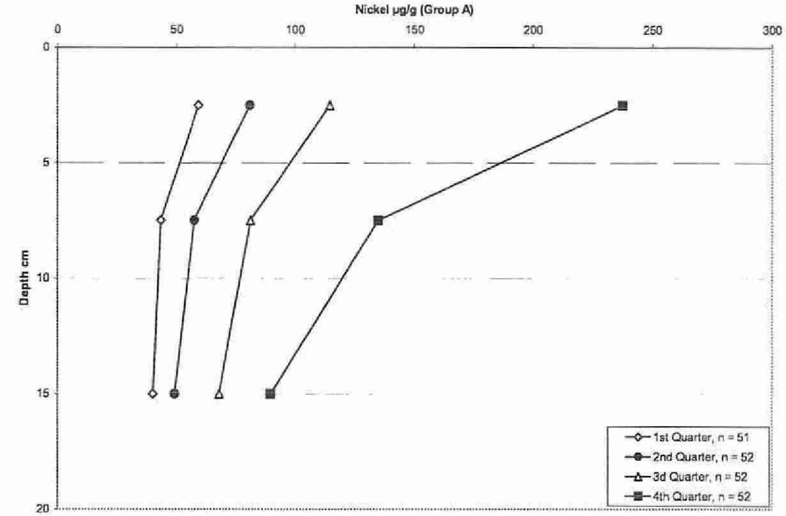


Figure 10.5.2.9a: Inner Communities, Ni depth profiles, Group A data.

Figure 10.5.2.9b: Inner Communities, Ni depth profiles, Group B data.

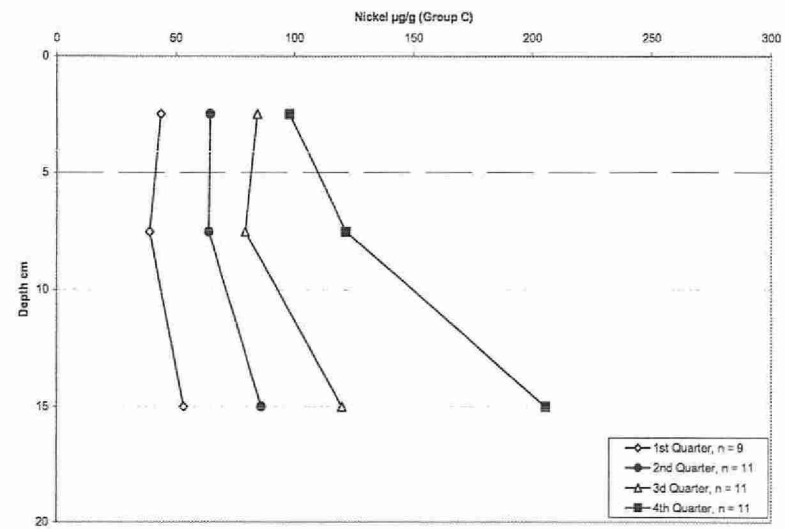


Figure 10.5.2.9c: Inner Communities, Ni depth profiles, Group C data.

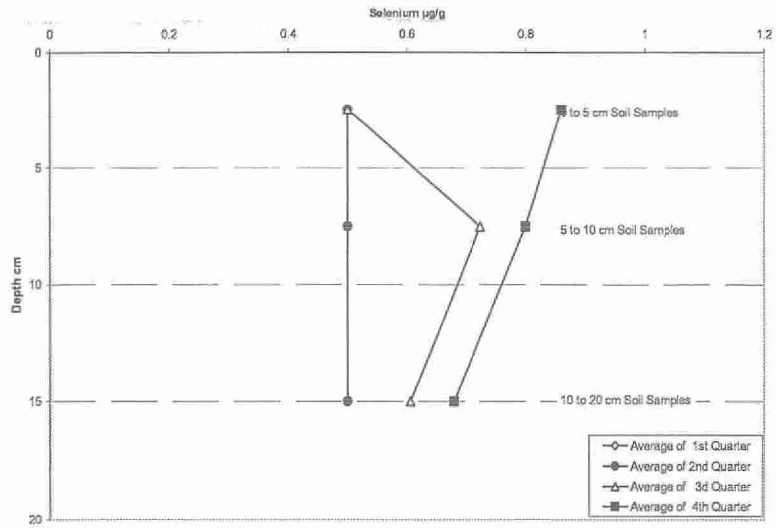


Figure 10.5.2.10: Inner Communities, Se depth profiles, all data.

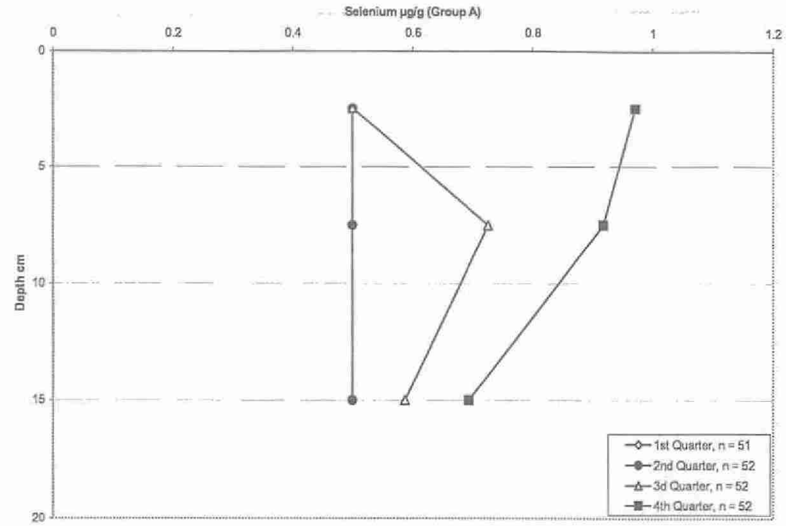


Figure 10.5.2.10a: Inner Communities, Se depth profiles, Group A data.

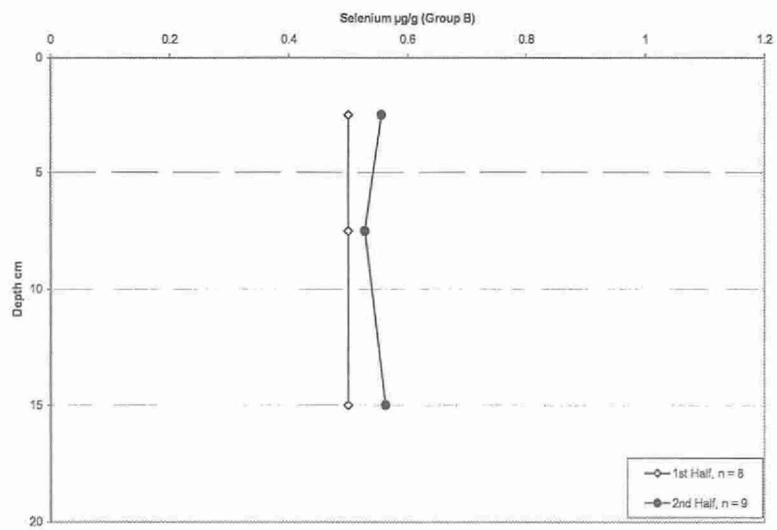


Figure 10.5.2.10b: Inner Communities, Se depth profiles, Group B data.

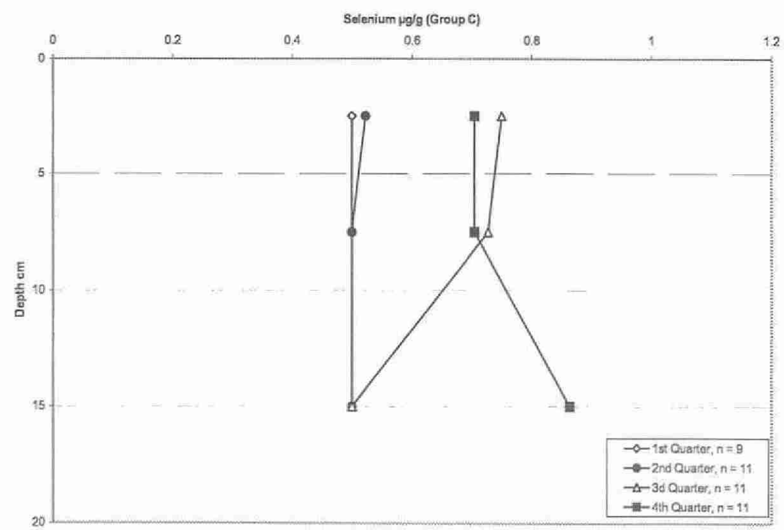


Figure 10.5.2.10c: Inner Communities, Se depth profiles, Group C data.

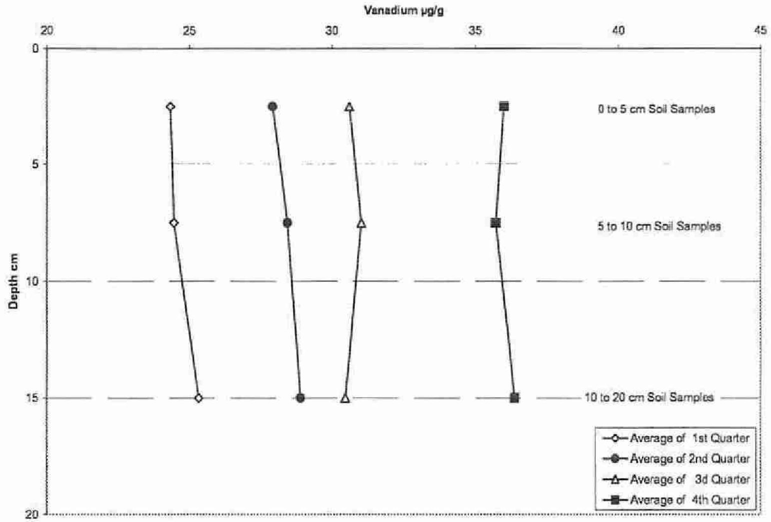


Figure 10.5.2.11: Inner Communities, V depth profiles, all data.

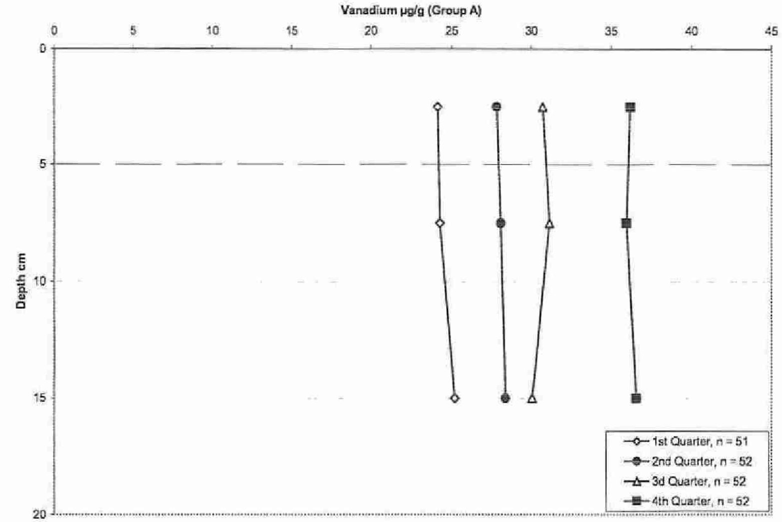


Figure 10.5.2.11a: Inner Communities, V depth profiles, Group A data.

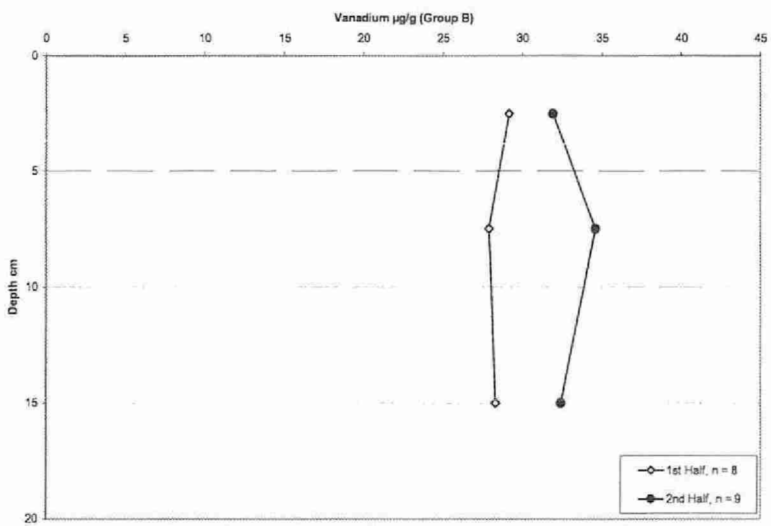


Figure 10.5.2.11b: Inner Communities, V depth profiles, Group B data.

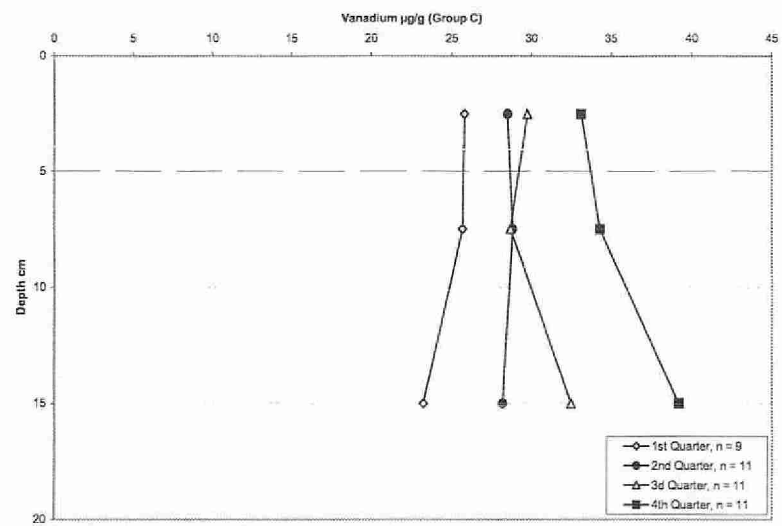


Figure 10.5.2.11c: Inner Communities, V depth profiles, Group C data.

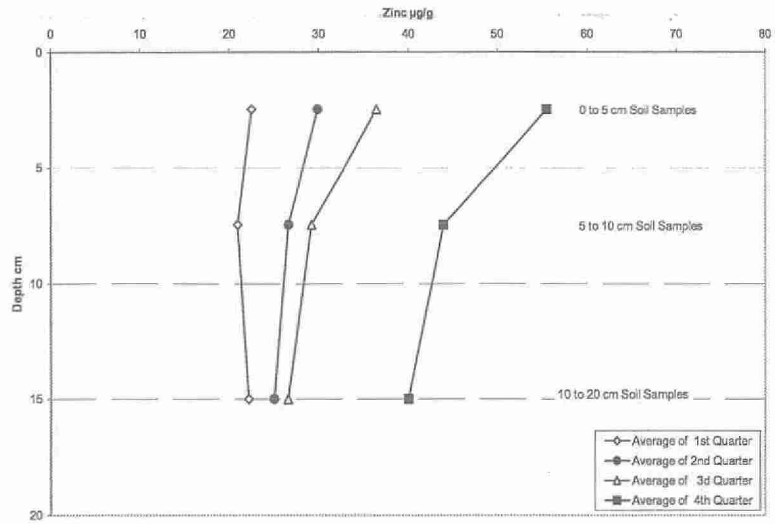


Figure 10.5.2.12: Inner Communities, Zn depth profiles, all data.

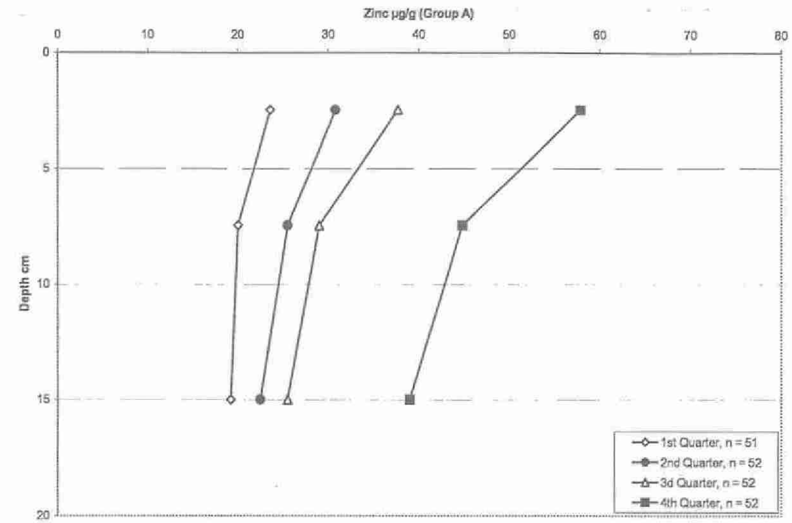


Figure 10.5.2.12a: Inner Communities, Zn depth profiles, Group A data.

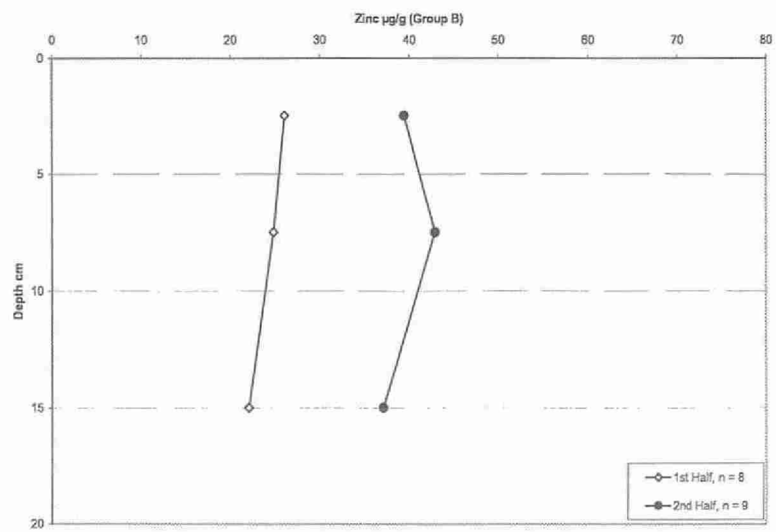


Figure 10.5.2.12b: Inner Communities, Zn depth profiles, Group B data.

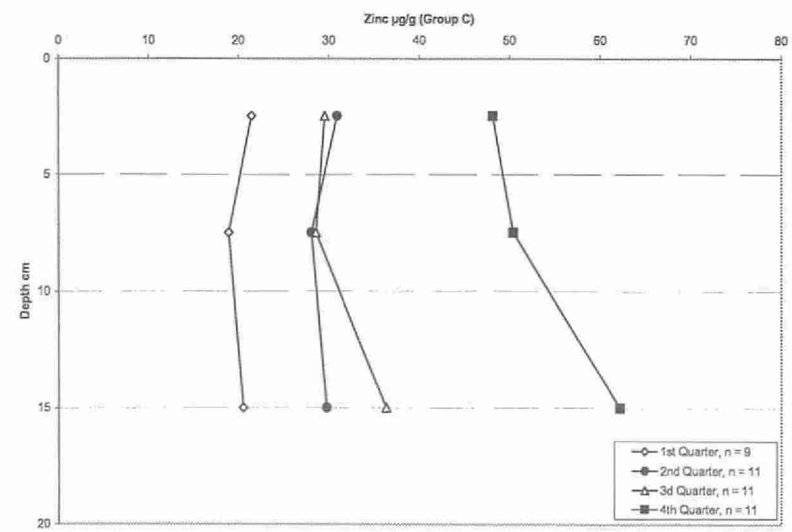


Figure 10.5.2.12c: Inner Communities, Zn depth profiles, Group C data.

10.5.3 Sudbury Core

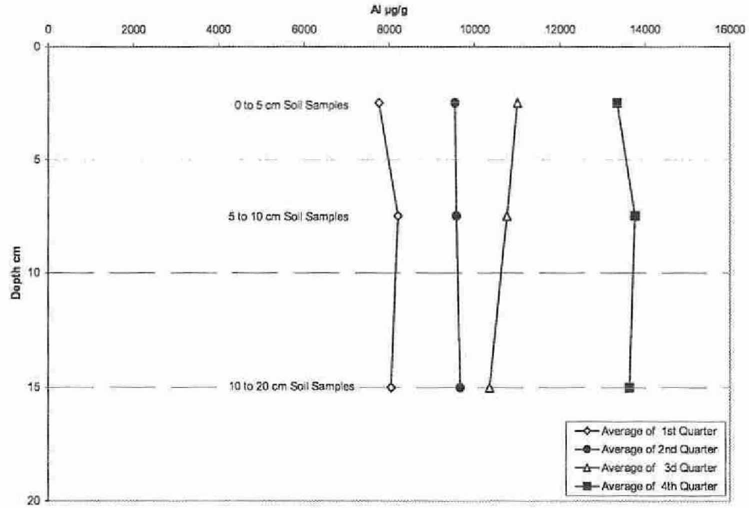


Figure 10.5.3.1: Sudbury Core, Al depth profiles, all data.

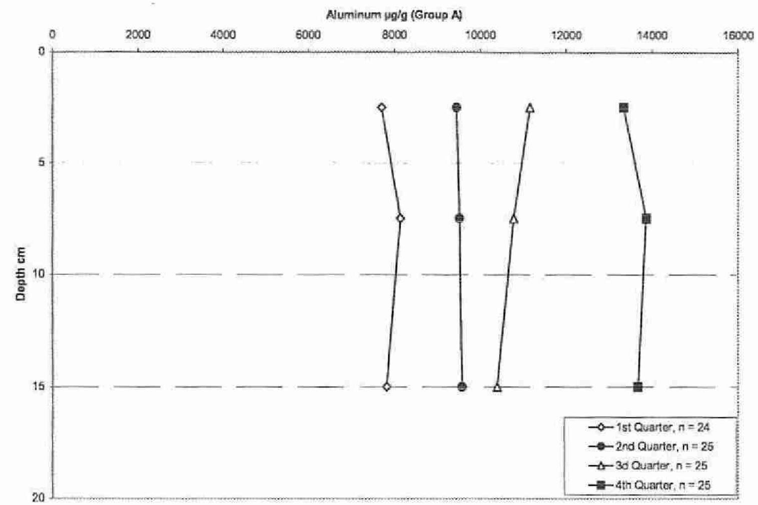


Figure 10.5.3.1a: Sudbury Core, Al depth profiles, Group A data.

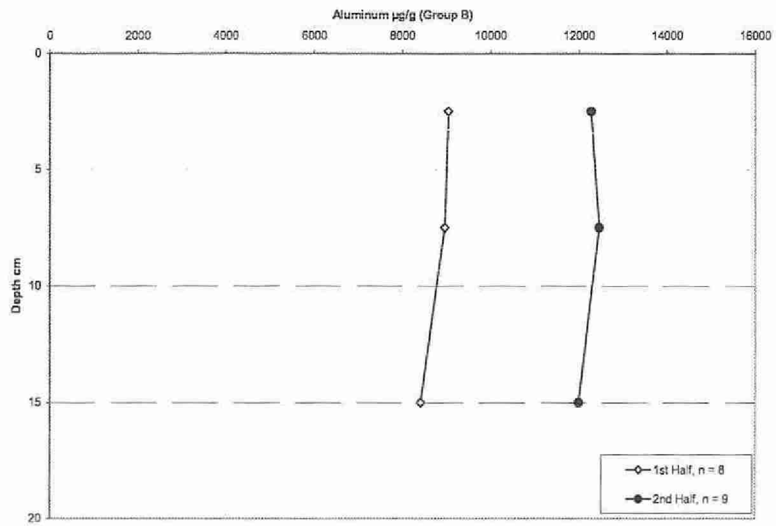


Figure 10.5.3.1b: Sudbury Core, Al depth profiles, Group B data.

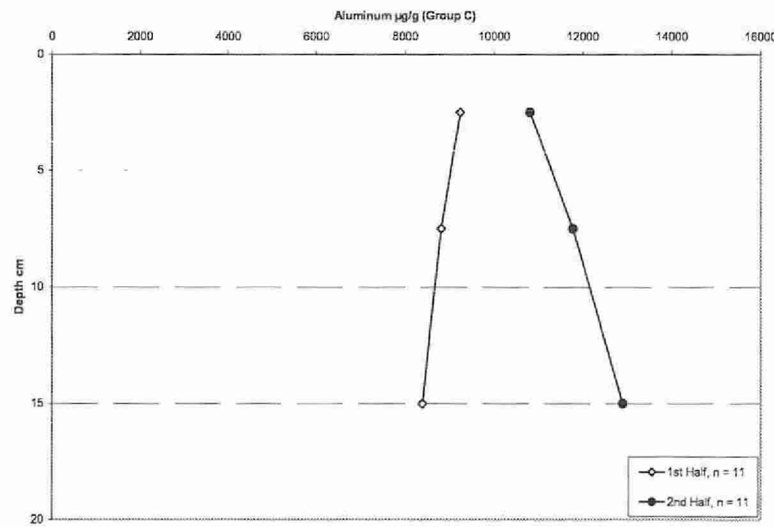


Figure 10.5.3.1c: Sudbury Core, Al depth profiles, Group C data.

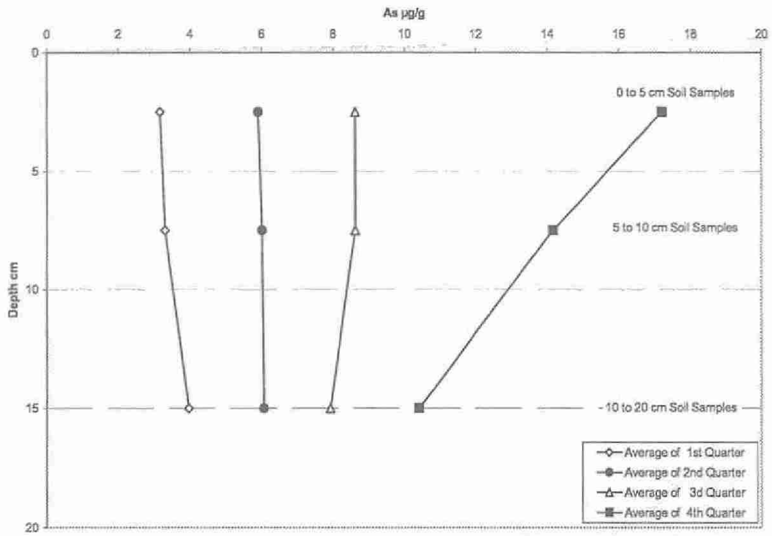


Figure 10.5.3.2: Sudbury Core, As depth profiles, all data.

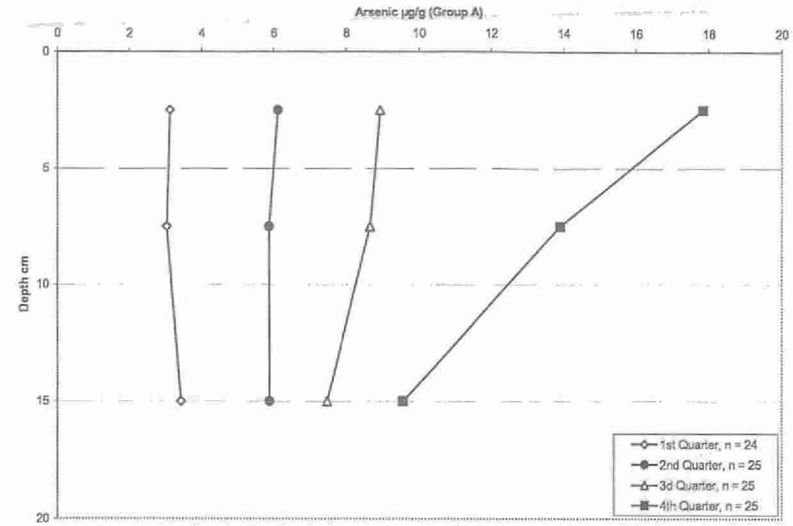


Figure 10.5.3.2a: Sudbury Core, As depth profiles, Group A data.

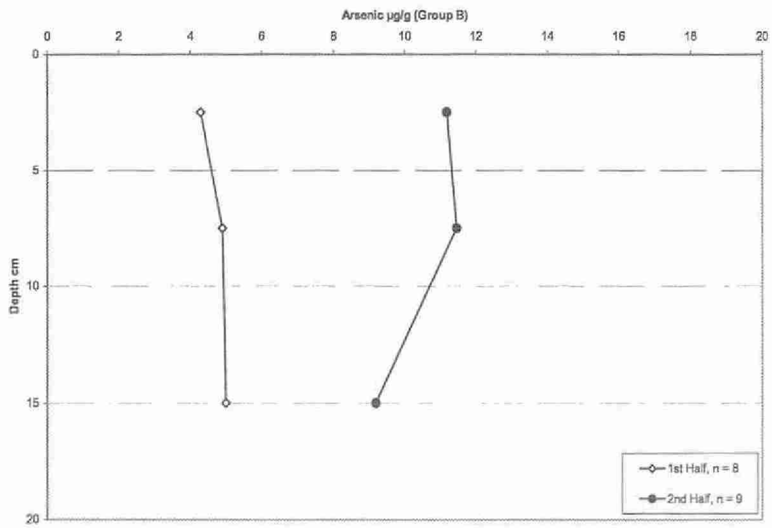


Figure 10.5.3.2b: Sudbury Core, As depth profiles, Group B data.

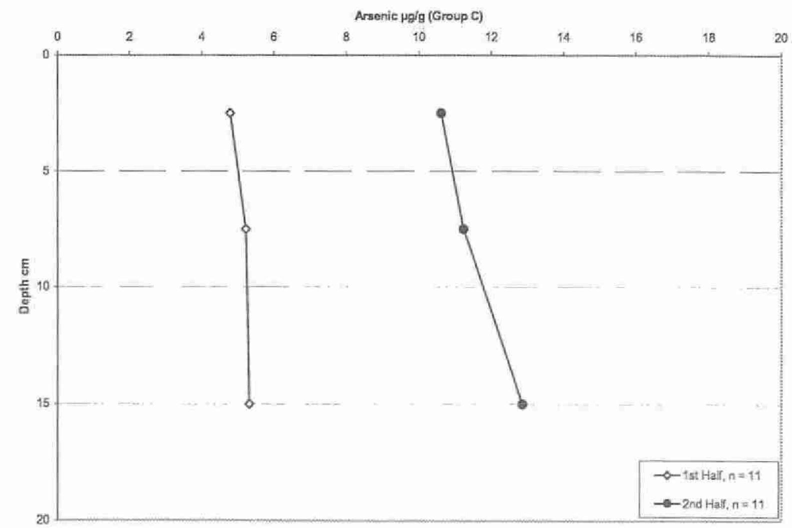


Figure 10.5.3.2c: Sudbury Core, As depth profiles, Group C data.

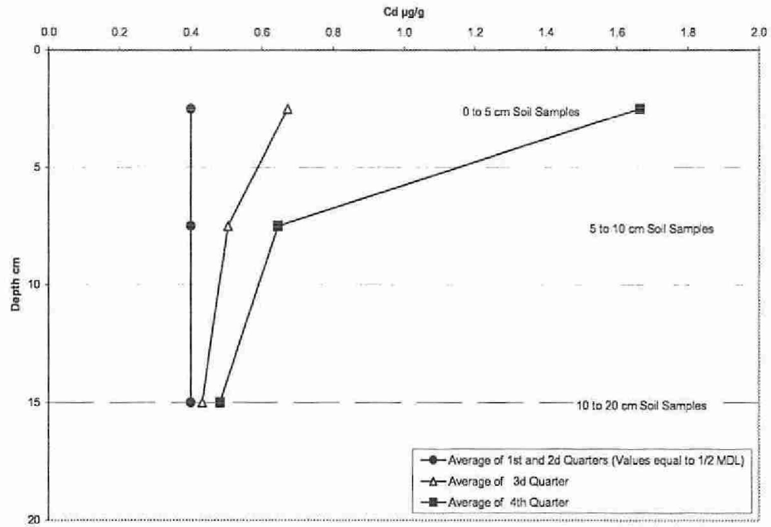


Figure 10.5.3.3: Sudbury Core, Cd depth profiles, all data.

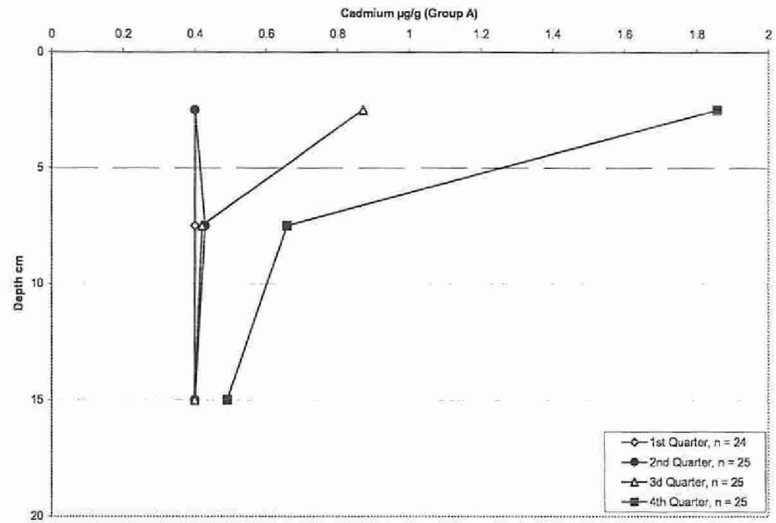


Figure 10.5.3.3a: Sudbury Core, Cd depth profiles, Group A data.

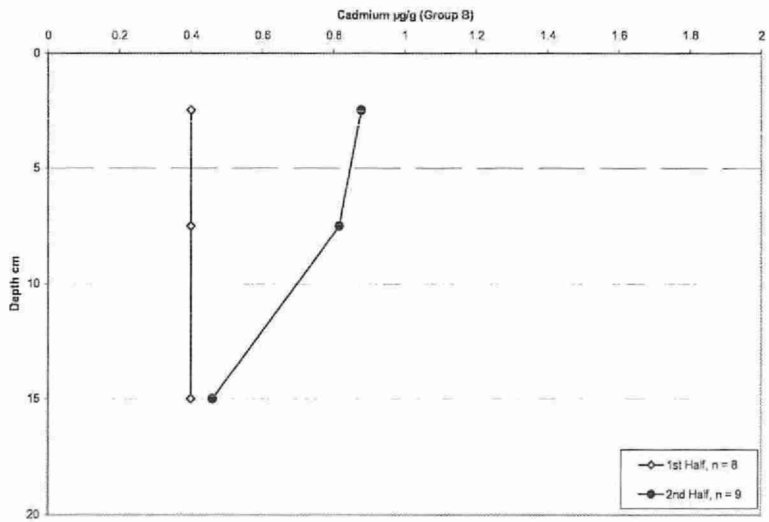


Figure 10.5.3.3b: Sudbury Core, Cd depth profiles, Group B data.

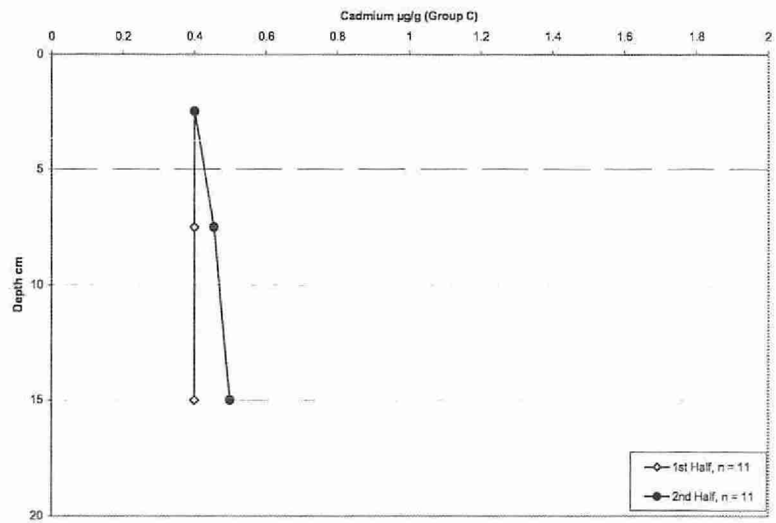


Figure 10.5.3.3c: Sudbury Core, Cd depth profiles, Group C data.

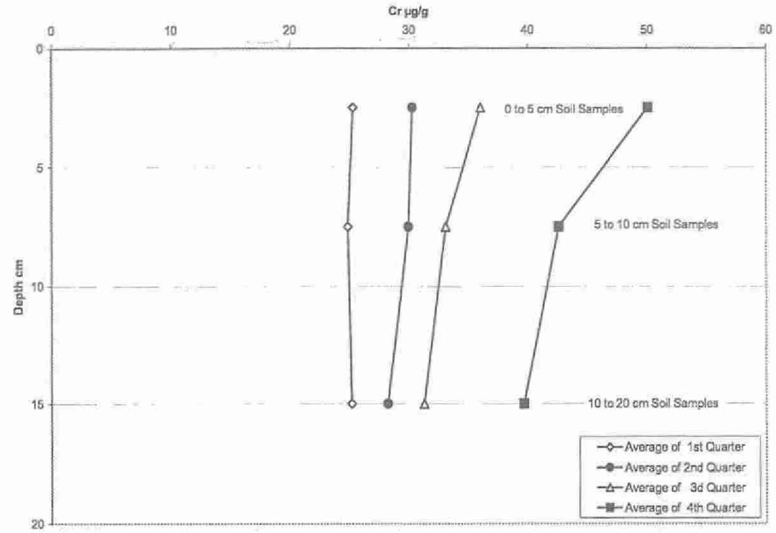


Figure 10.5.3.4: Sudbury Core, Cr depth profiles, all data.

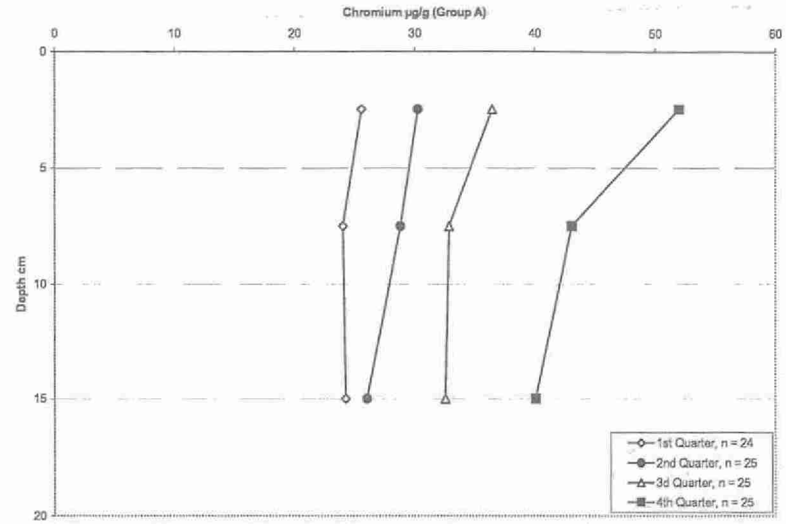


Figure 10.5.3.4a: Sudbury Core, Cr depth profiles, Group A data.

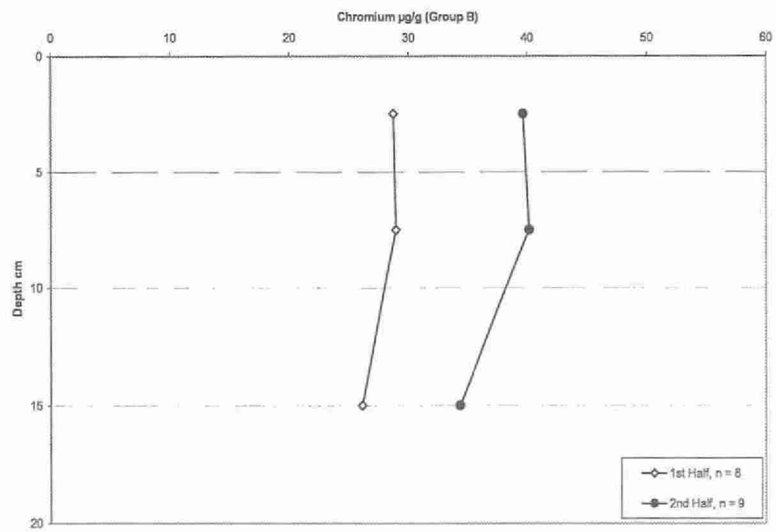


Figure 10.5.3.4b: Sudbury Core, Cr depth profiles, Group B data.

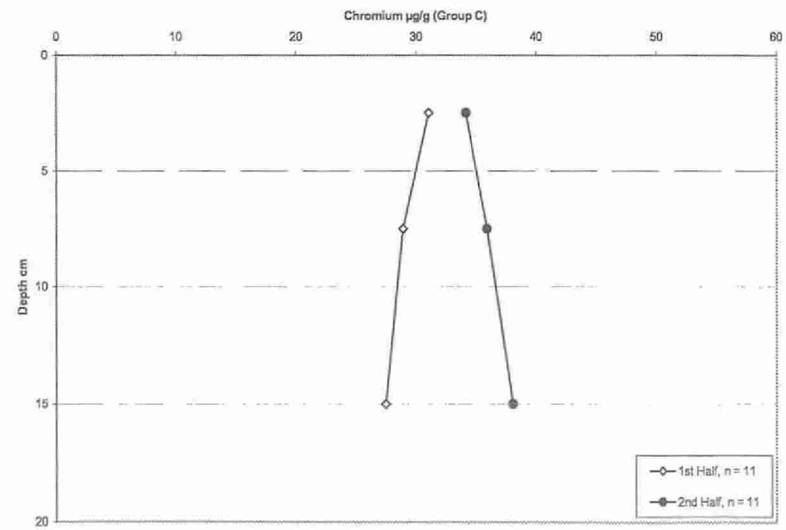


Figure 10.5.3.4c: Sudbury Core, Cr depth profiles, Group C data.

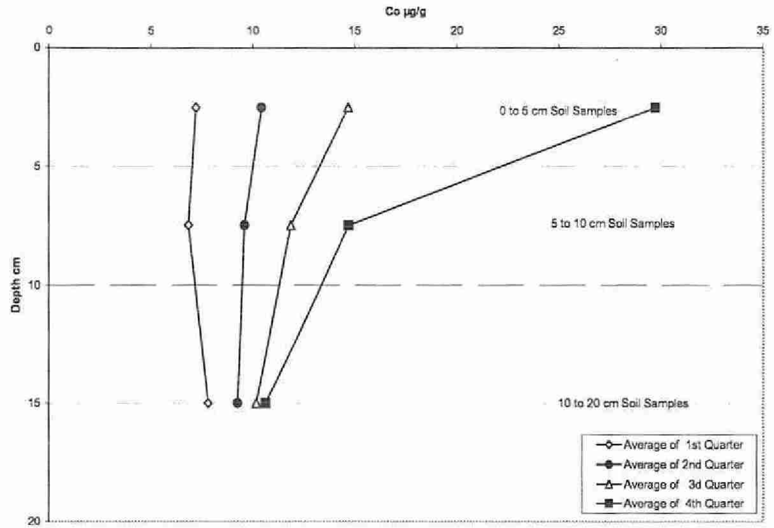


Figure 10.5.3.5: Sudbury Core, Co depth profiles, all data.

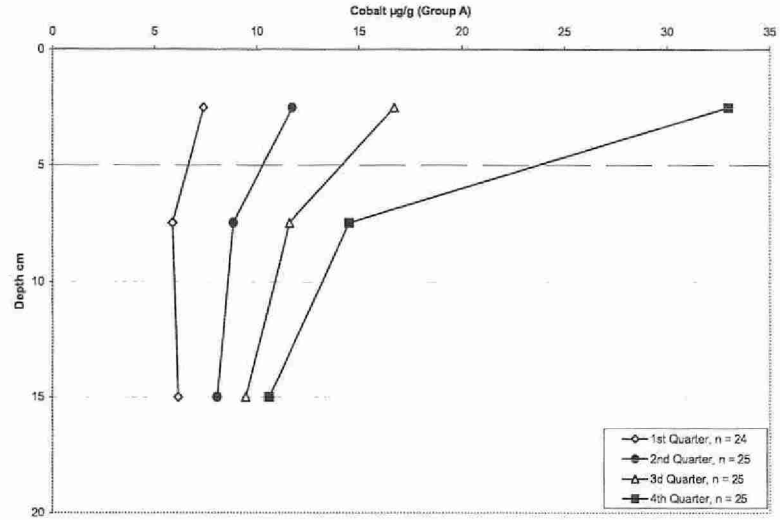


Figure 10.5.3.5a: Sudbury Core, Co depth profiles, Group A data.

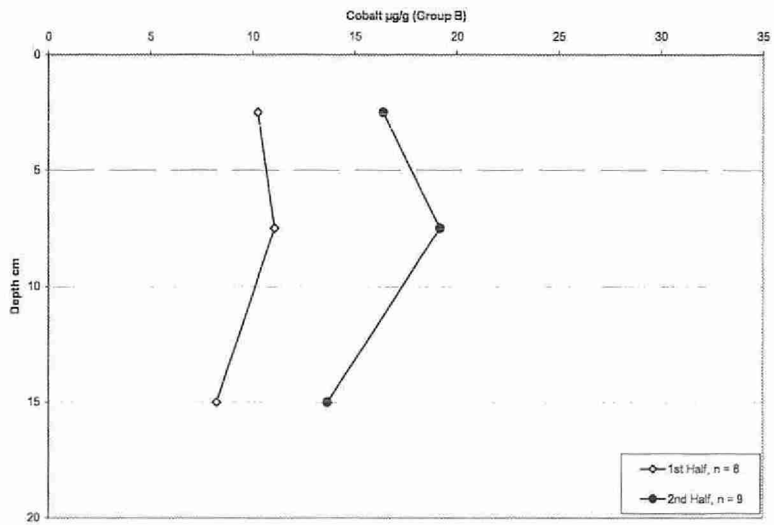


Figure 10.5.3.5b: Sudbury Core, Co depth profiles, Group B data.

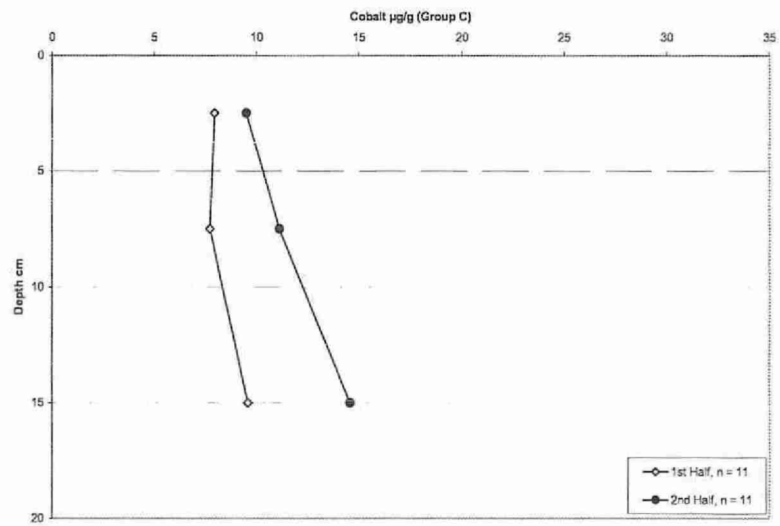


Figure 10.5.3.5c: Sudbury Core, Co depth profiles, Group C data.

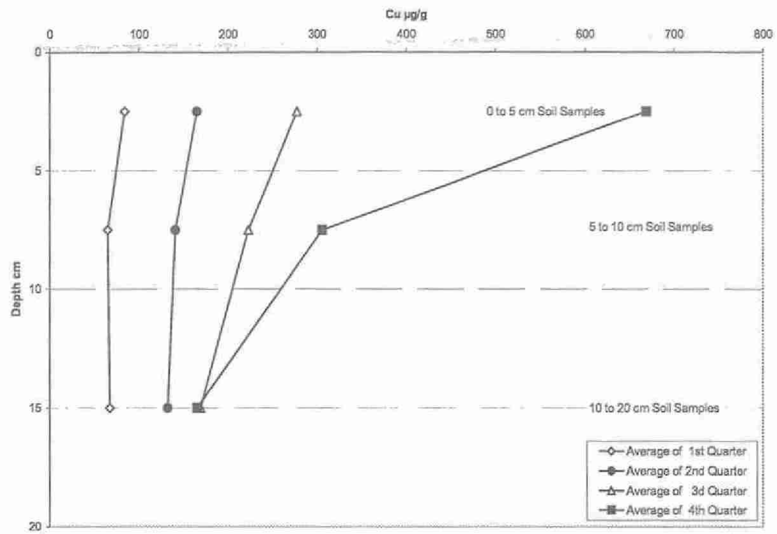


Figure 10.5.3.6: Sudbury Core, Cu depth profiles, all data.

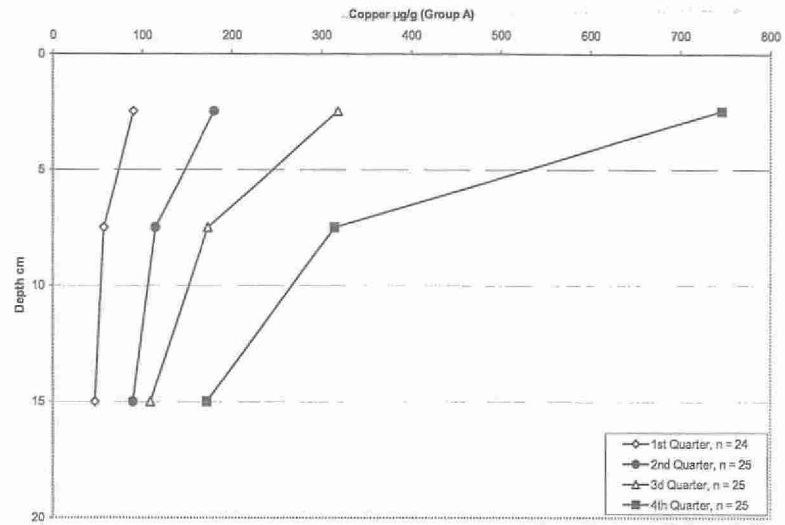


Figure 10.5.3.6a: Sudbury Core, Cu depth profiles, Group A data.

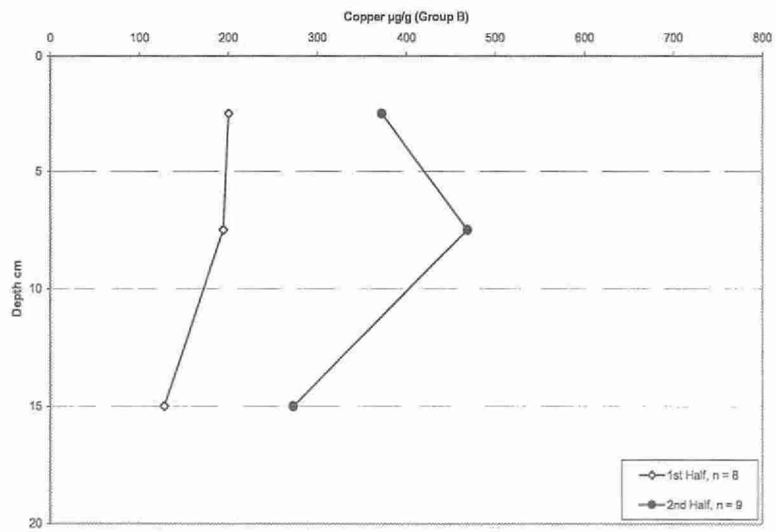


Figure 10.5.3.6b: Sudbury Core, Cu depth profiles, Group B data.

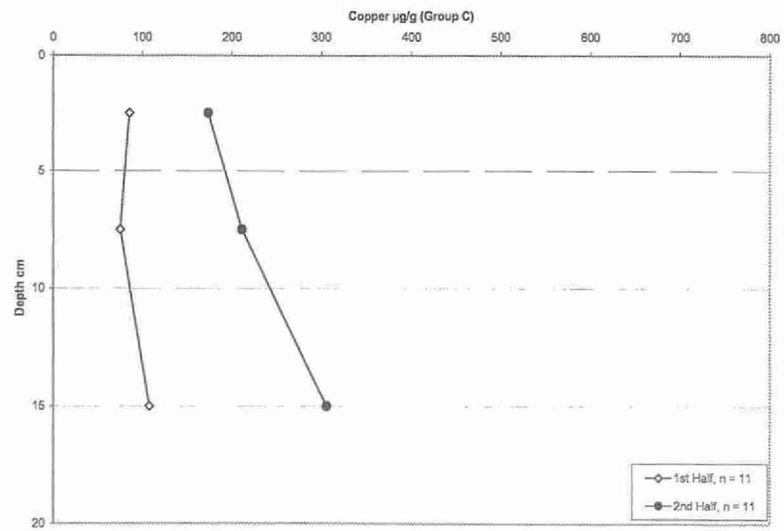


Figure 10.5.3.6c: Sudbury Core, Cu depth profiles, Group C data.

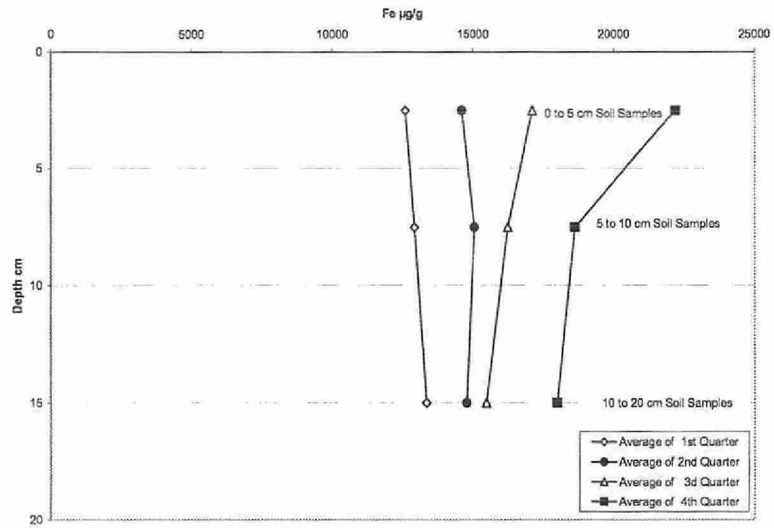


Figure 10.5.3.7: Sudbury Core, Fe depth profiles, all data.

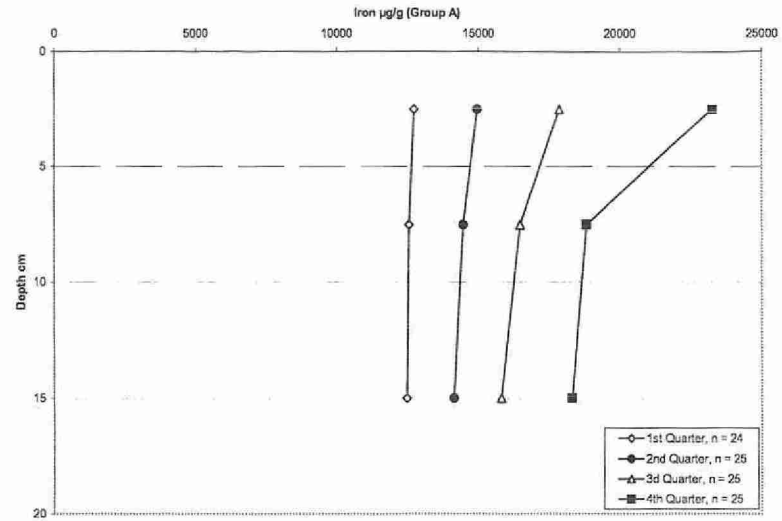


Figure 10.5.3.7a: Sudbury Core, Fe depth profiles, Group A data.

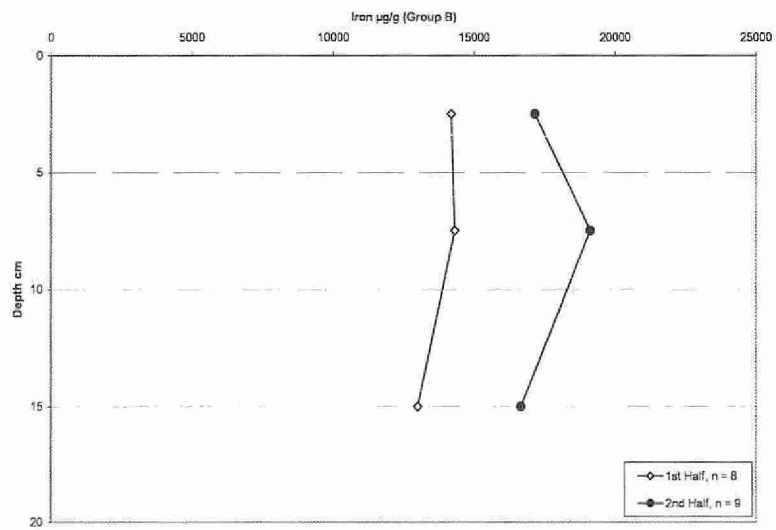


Figure 10.5.3.7b: Sudbury Core, Fe depth profiles, Group B data.

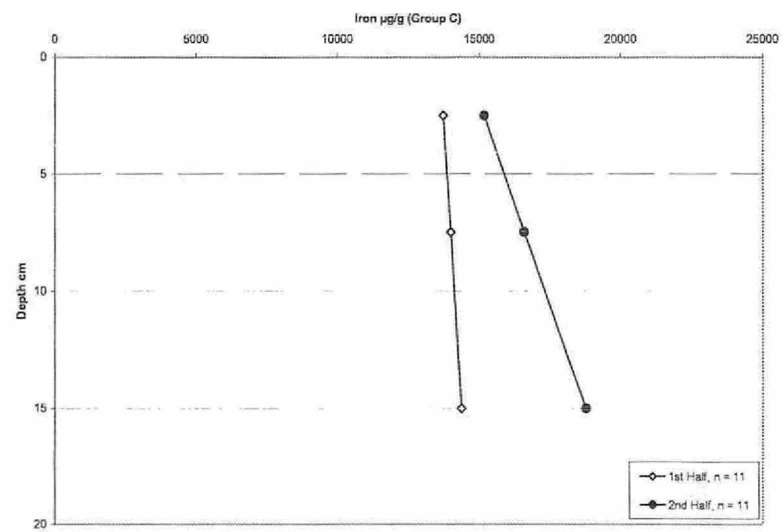


Figure 10.5.3.7c: Sudbury Core, Fe depth profiles, Group C data.

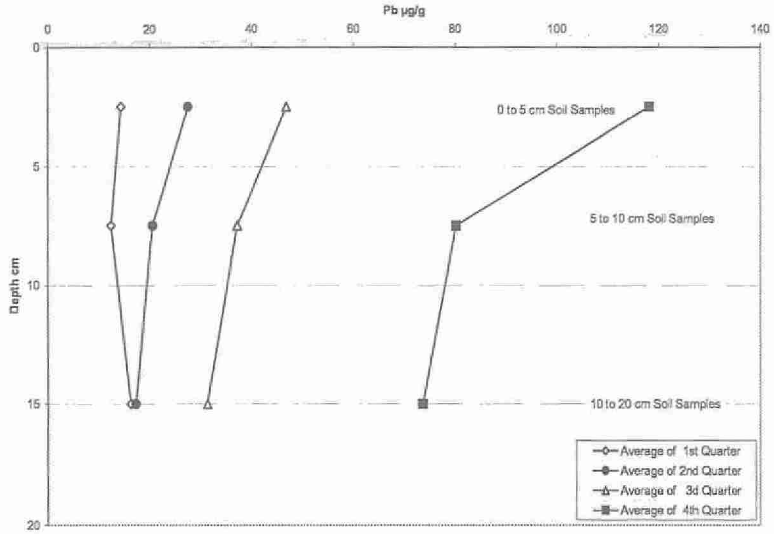


Figure 10.5.3.8: Sudbury Core, Pb depth profiles, all data.

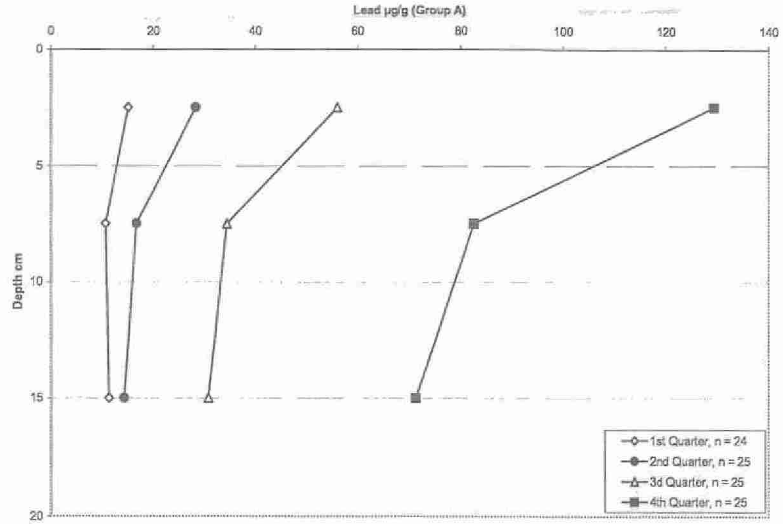


Figure 10.5.3.8a: Sudbury Core, Pb depth profiles, Group A data.

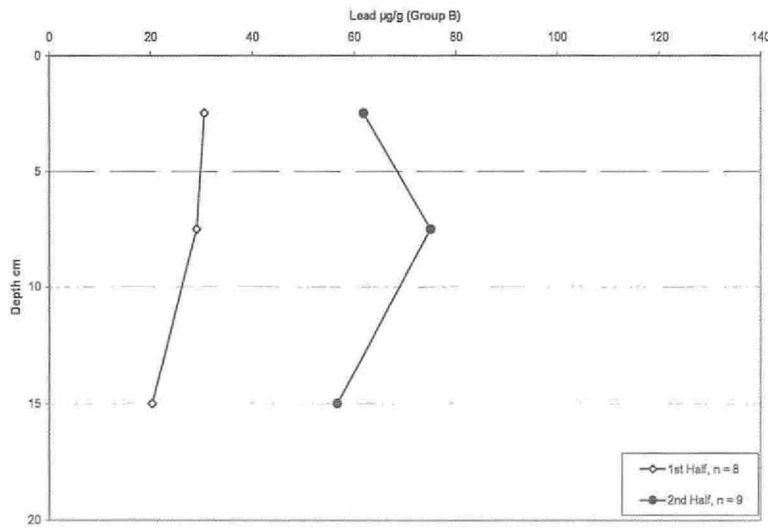


Figure 10.5.3.8b: Sudbury Core, Pb depth profiles, Group B data.

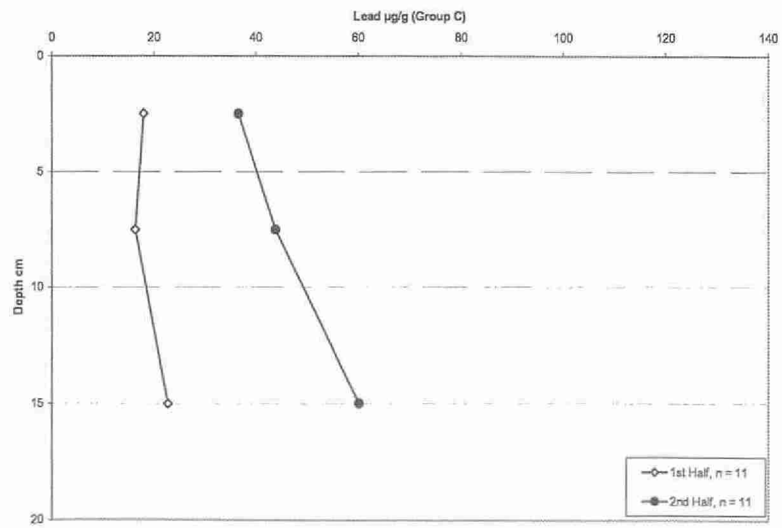


Figure 10.5.3.8c: Sudbury Core, Pb depth profiles, Group C data.

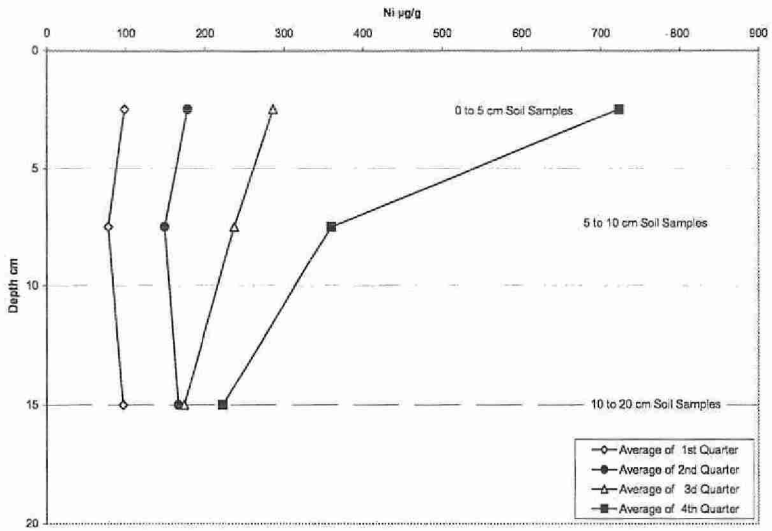


Figure 10.5.3.9: Sudbury Core, Ni depth profiles, all data.

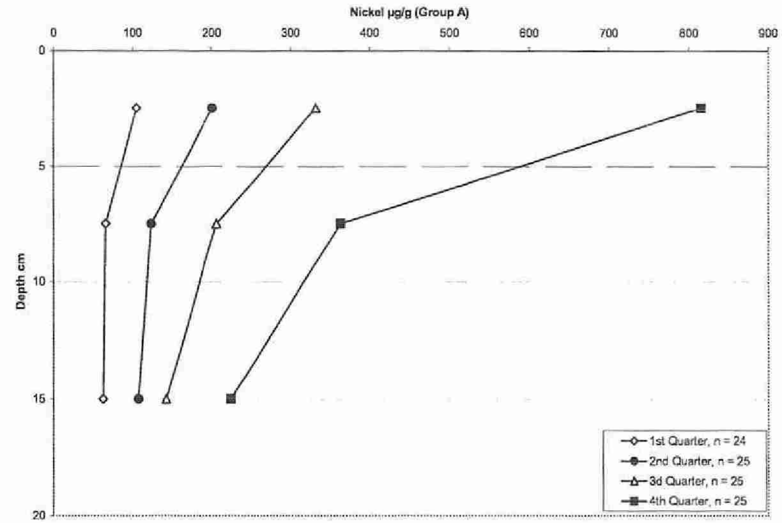


Figure 10.5.3.9a: Sudbury Core, Ni depth profiles, Group A data.

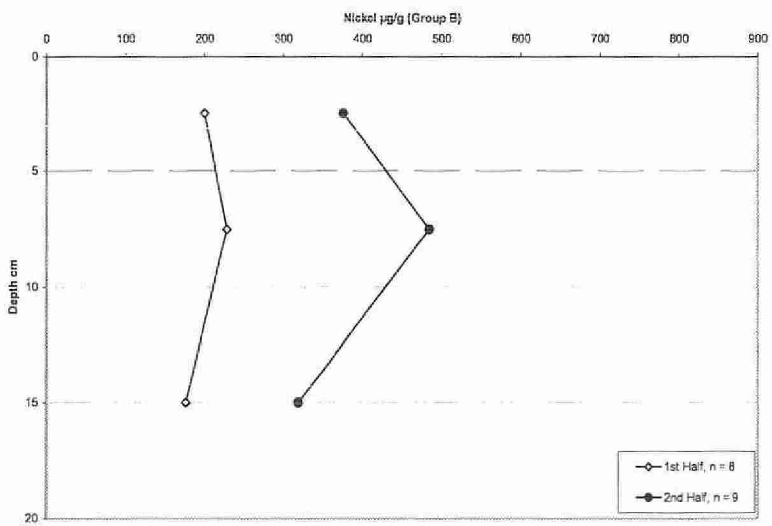


Figure 10.5.3.9b: Sudbury Core, Ni depth profiles, Group B data.

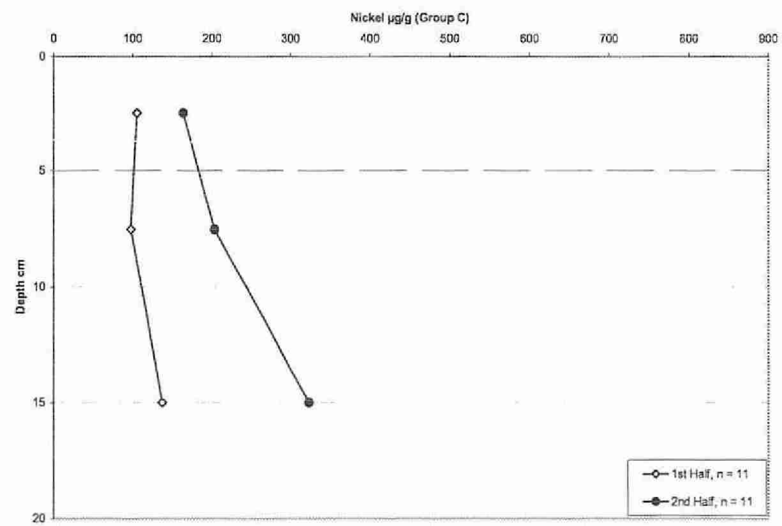


Figure 10.5.3.9c: Sudbury Core, Ni depth profiles, Group C data.

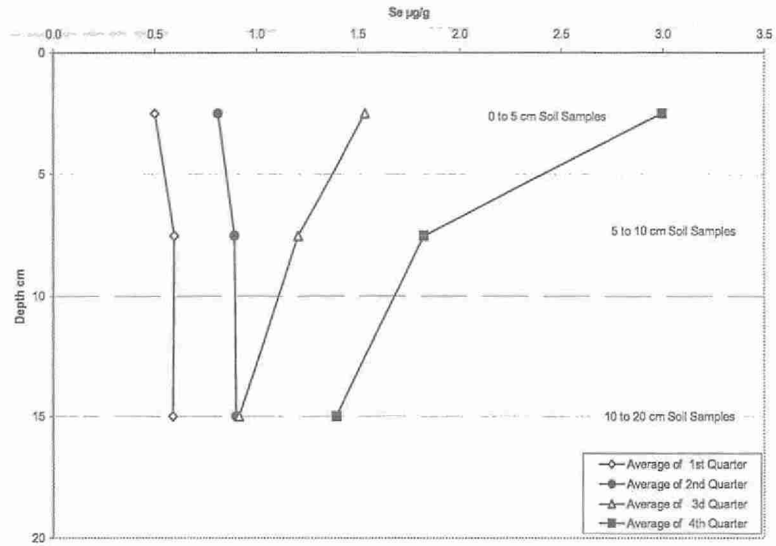


Figure 10.5.3.10: Sudbury Core, Se depth profiles, all data.

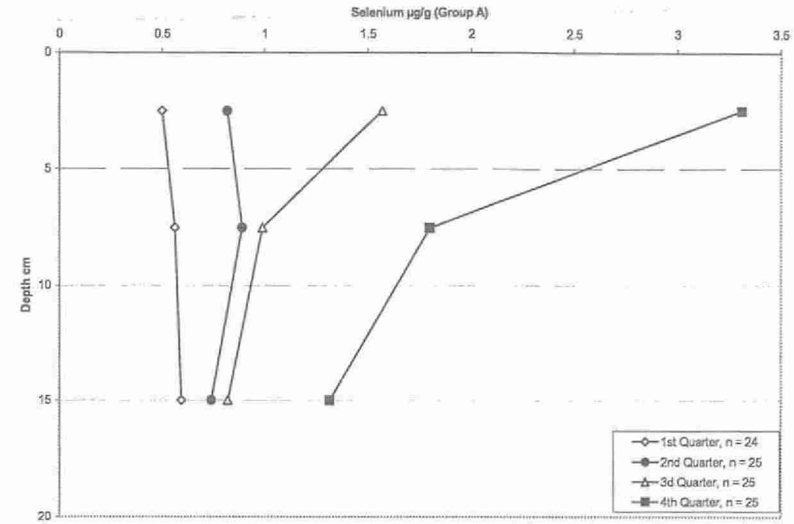


Figure 10.5.3.10a: Sudbury Core, Se depth profiles, Group A data.

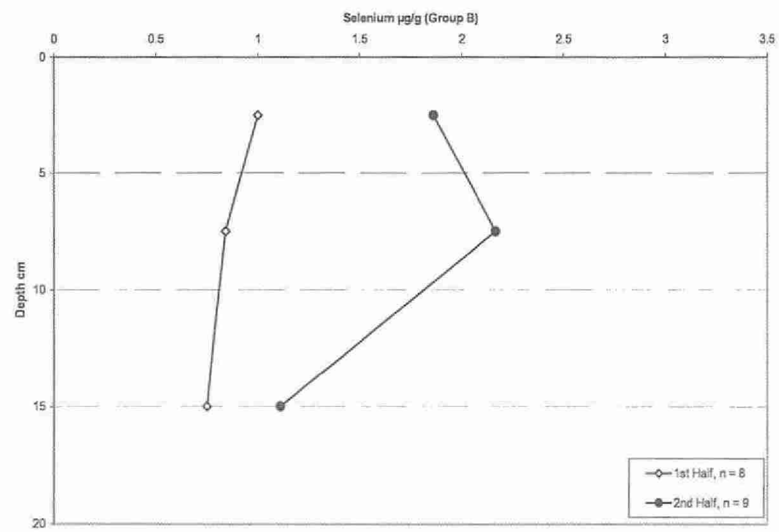


Figure 10.5.3.10b: Sudbury Core, Se depth profiles, Group B data.

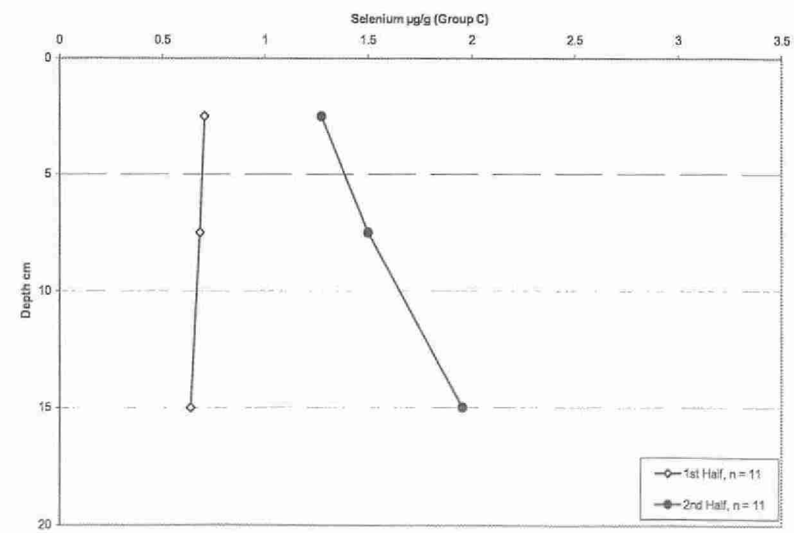


Figure 10.5.3.10c: Sudbury Core, Se depth profiles, Group C data.

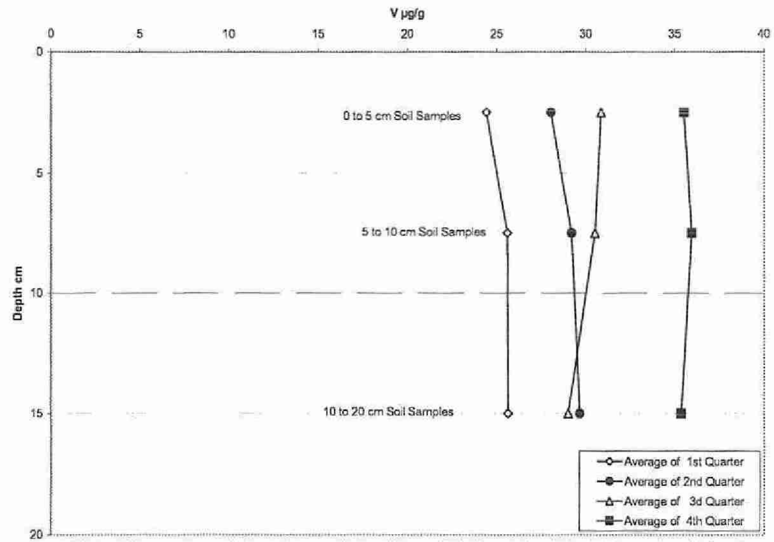


Figure 10.5.3.11: Sudbury Core, V depth profiles, all data.

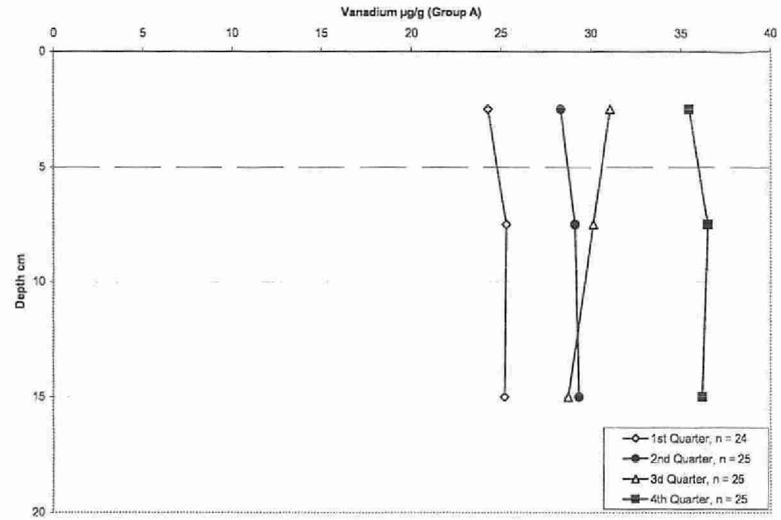


Figure 10.5.3.11a: Sudbury Core, V depth profiles, Group A data.

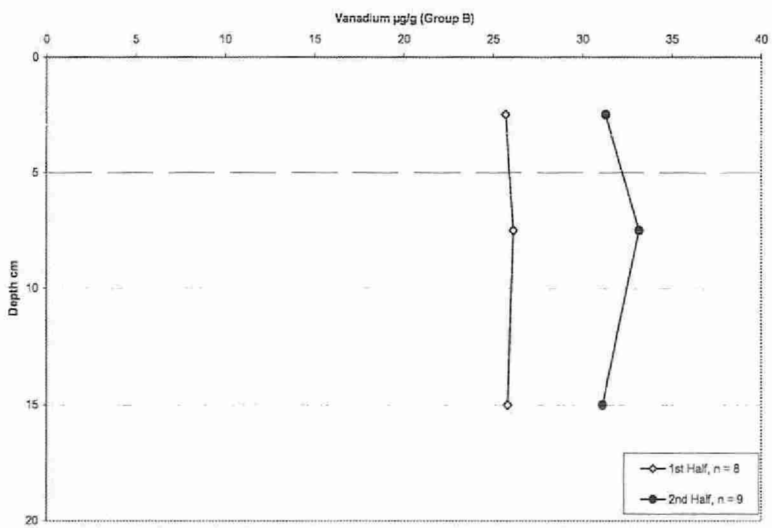


Figure 10.5.3.11b: Sudbury Core, V depth profiles, Group B data.

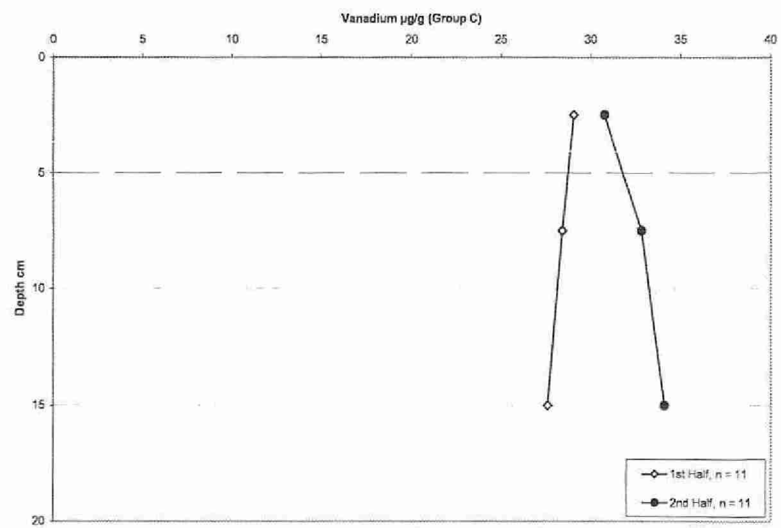


Figure 10.5.3.11c: Sudbury Core, V depth profiles, Group C data.

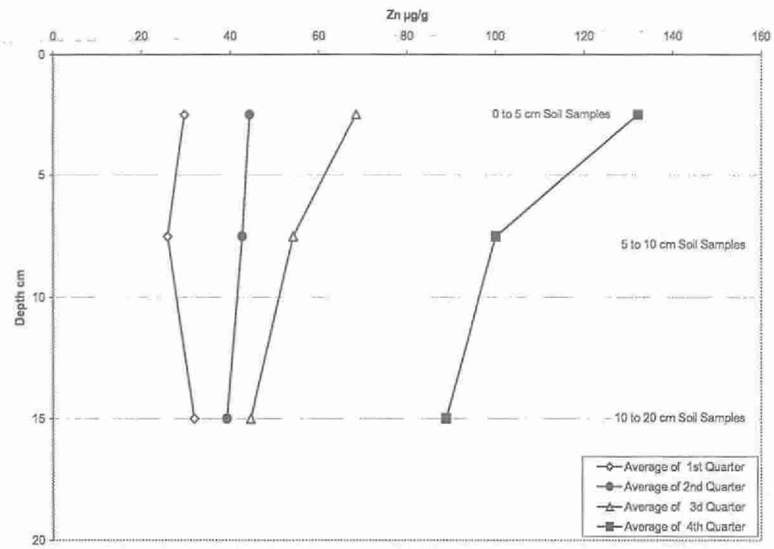


Figure 10.5.3.12: Sudbury Core, Zn depth profiles, all data.

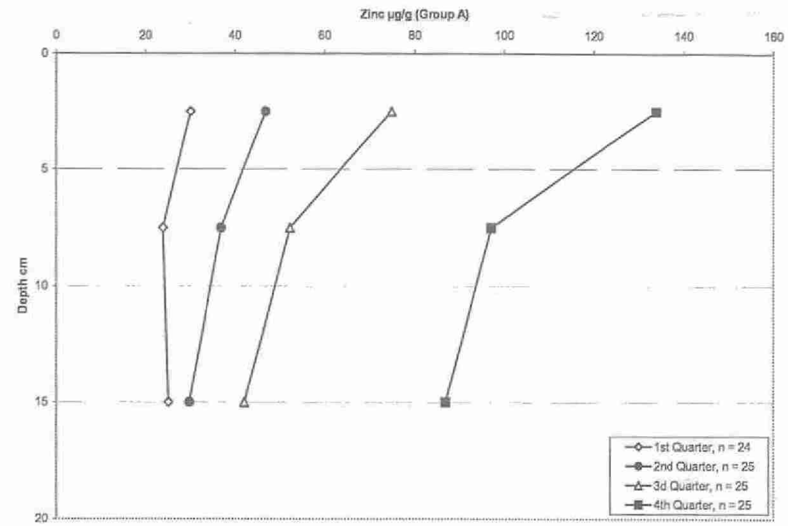


Figure 10.5.3.12a: Sudbury Core, Zn depth profiles, Group A data.

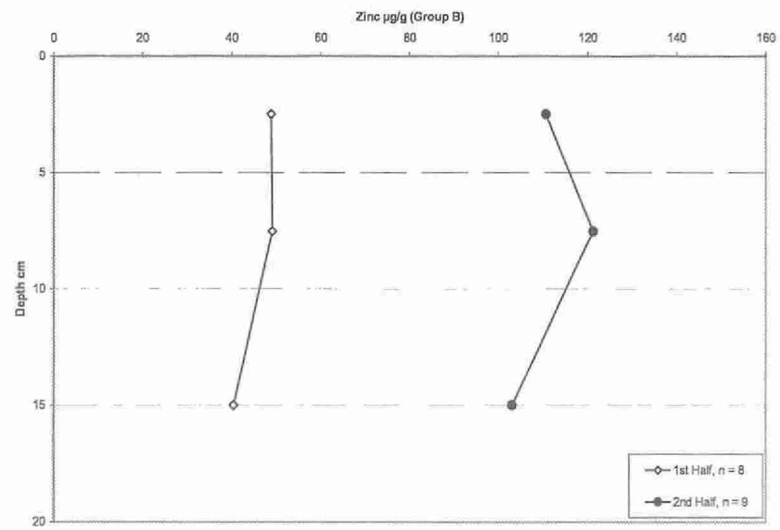


Figure 10.5.3.12b: Sudbury Core, Zn depth profiles, Group B data.

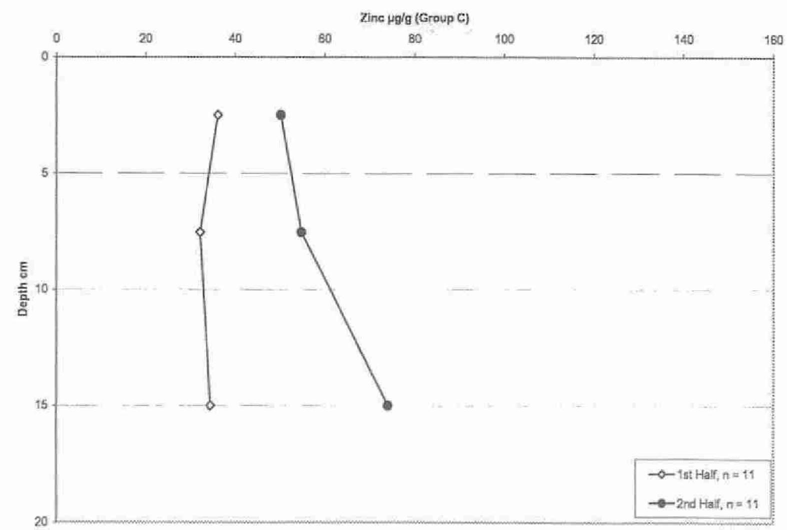


Figure 10.5.3.12c: Sudbury Core, Zn depth profiles, Group C data.

10.5.4 Coniston

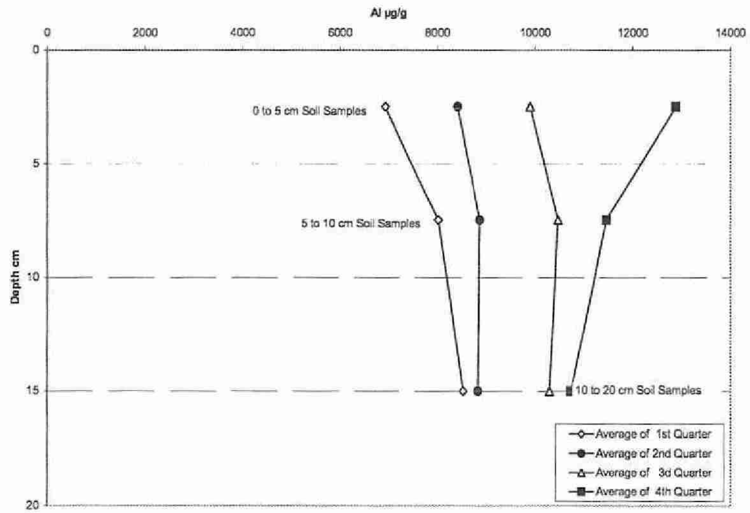


Figure 10.5.4.1: Coniston, Al depth profiles, all data.

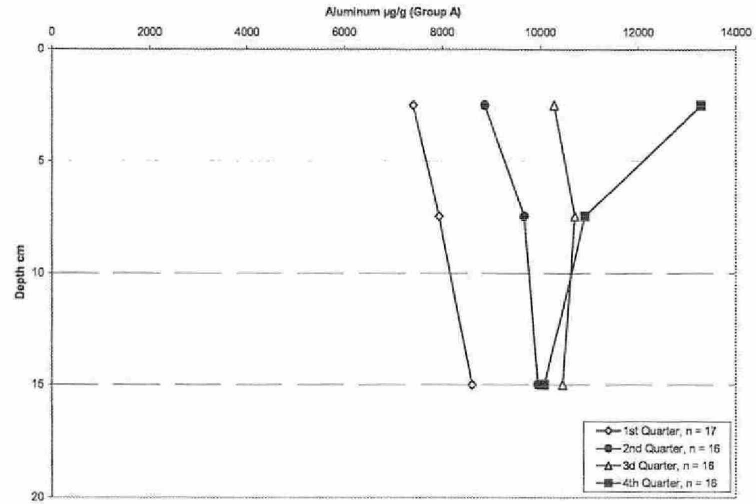


Figure 10.5.4.1a: Coniston, Al depth profiles, Group A data.

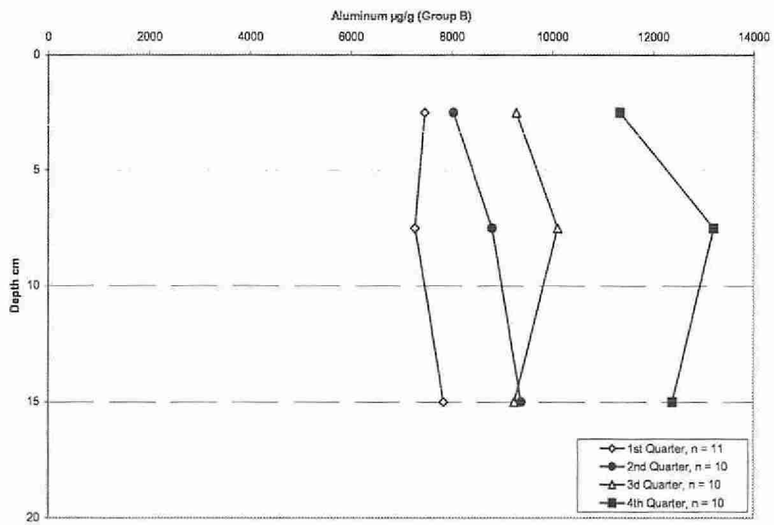


Figure 10.5.4.1b: Coniston, Al depth profiles, Group B data.

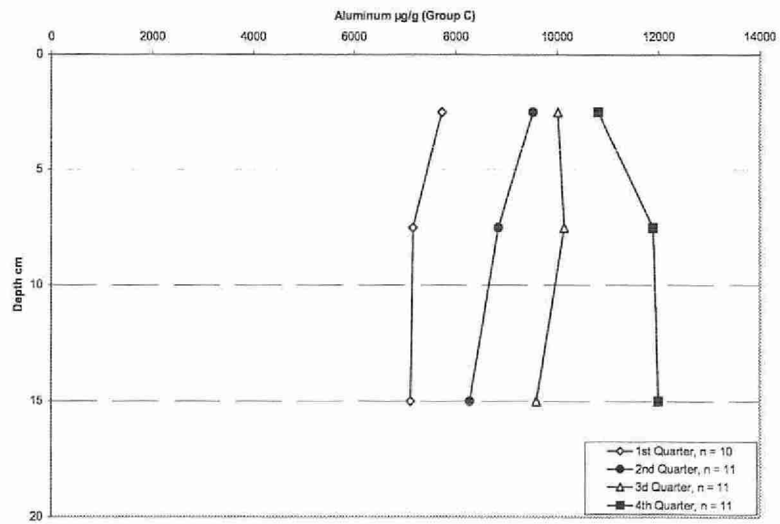


Figure 10.5.4.1c: Coniston, Al depth profiles, Group C data.

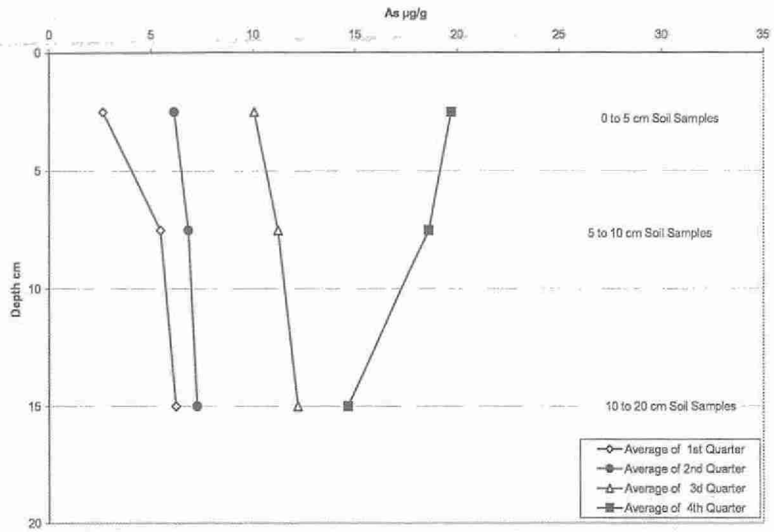


Figure 10.5.4.2: Coniston, As depth profiles, all data.

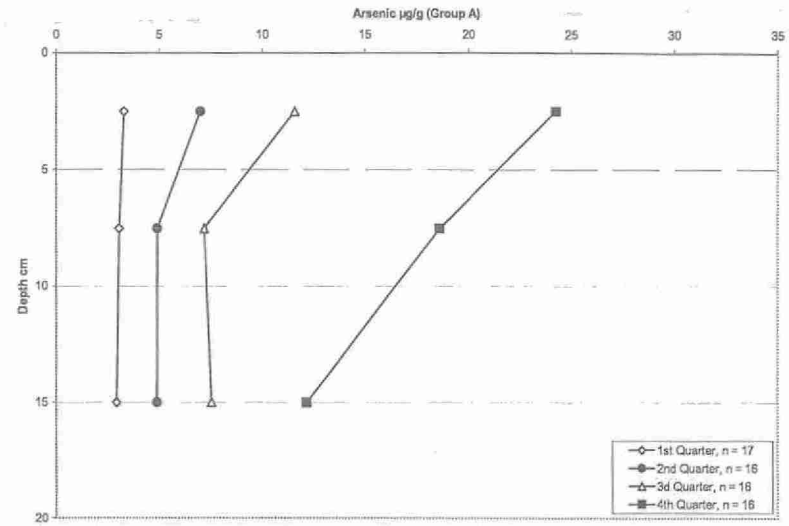


Figure 10.5.4.2a: Coniston, As depth profiles, Group A data.

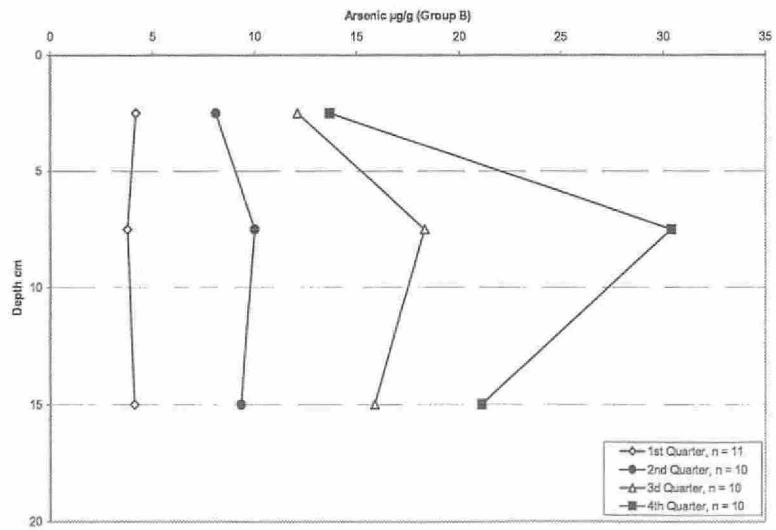


Figure 10.5.4.2b: Coniston, As depth profiles, Group B data.

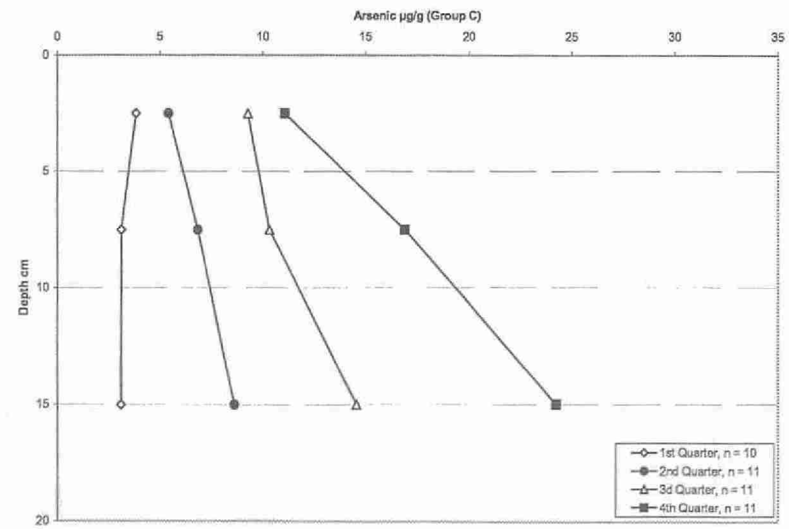


Figure 10.5.4.2c: Coniston, As depth profiles, Group C data.

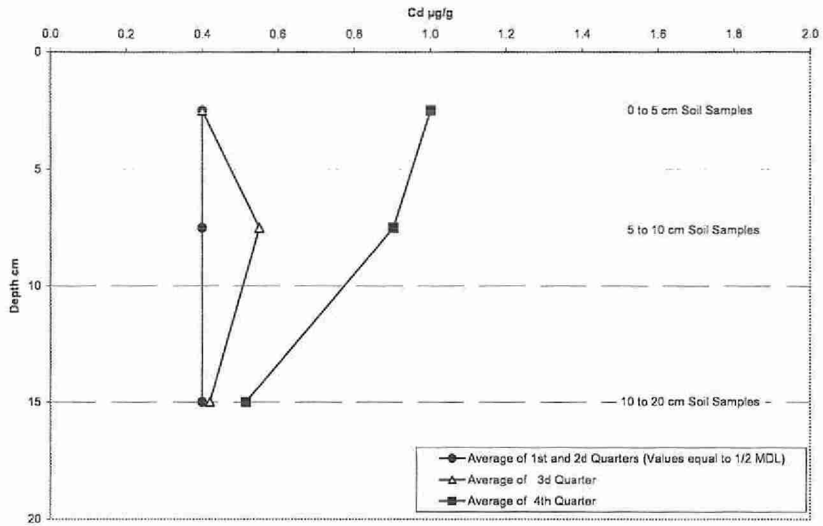


Fig. 10.5.4.3: Coniston, Cd depth profiles, all data.

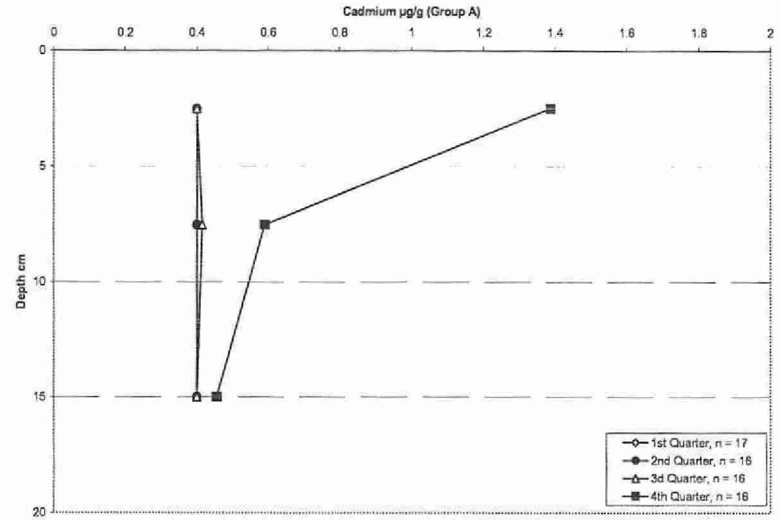


Figure 10.5.4.3a: Coniston, Cd depth profiles, Group A data.

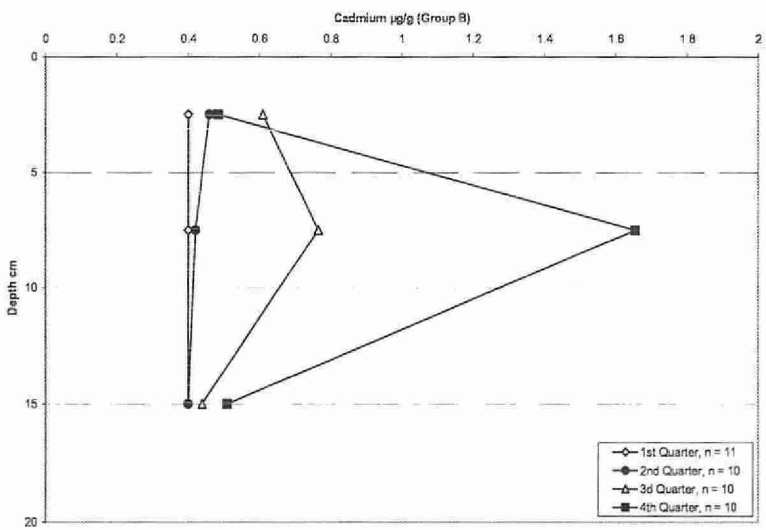


Figure 10.5.4.3b: Coniston, Cd depth profiles, Group B data.

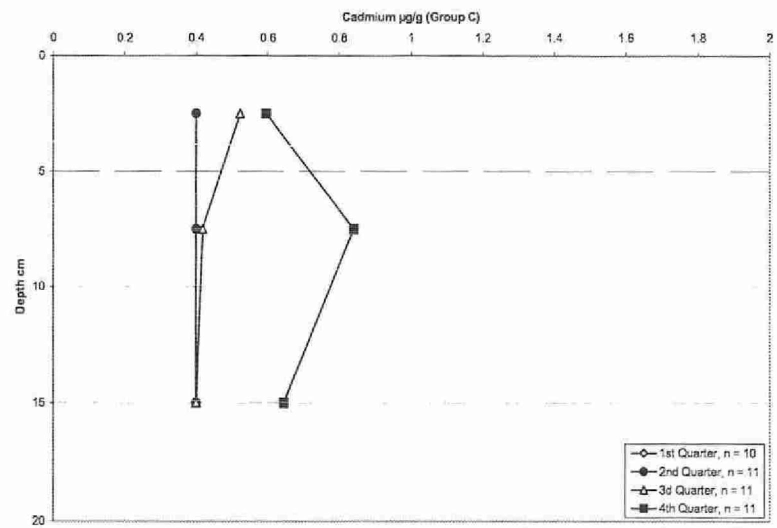


Figure 10.5.4.3c: Coniston, Cd depth profiles, Group C data.

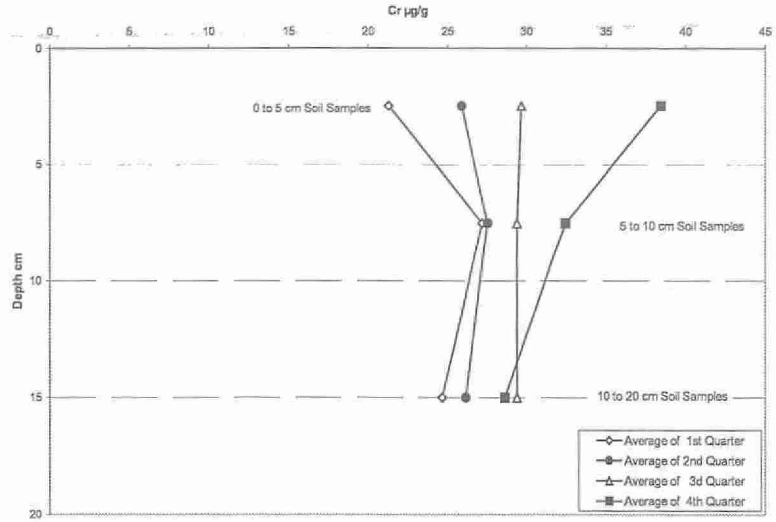


Figure 10.5.4.4: Coniston, Cr depth profiles, all data.

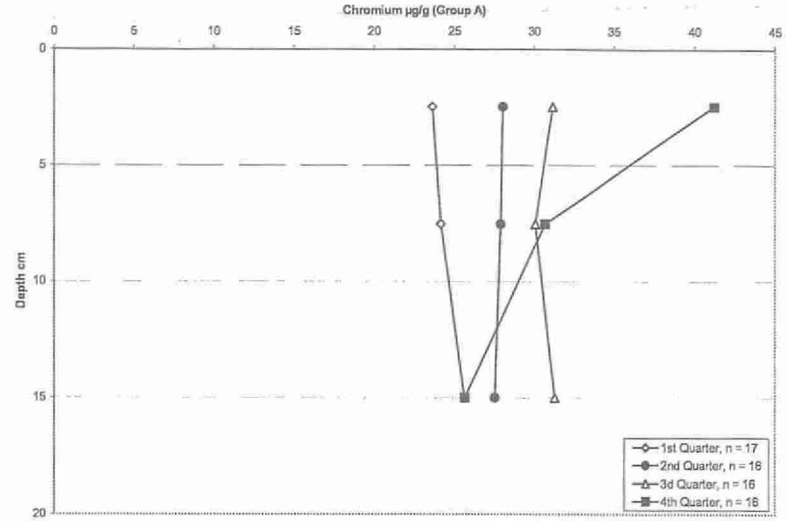


Figure 10.5.4.4a: Coniston, Cr depth profiles, Group A data.

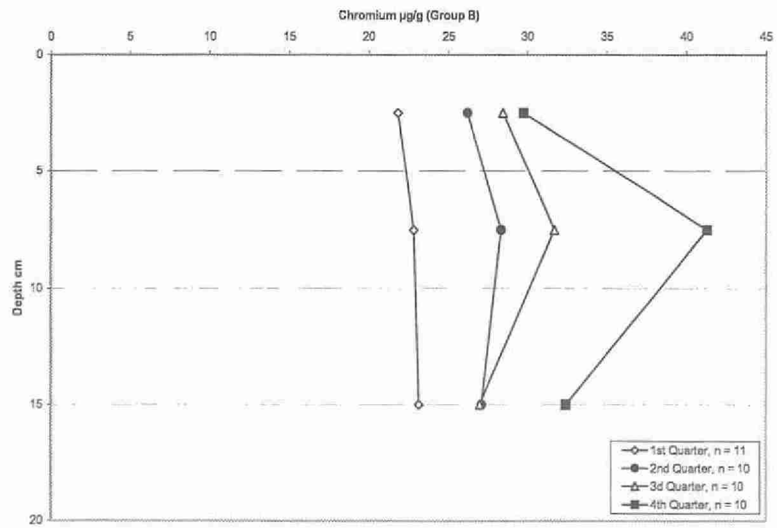


Figure 10.5.4.4b: Coniston, Cr depth profiles, Group B data.

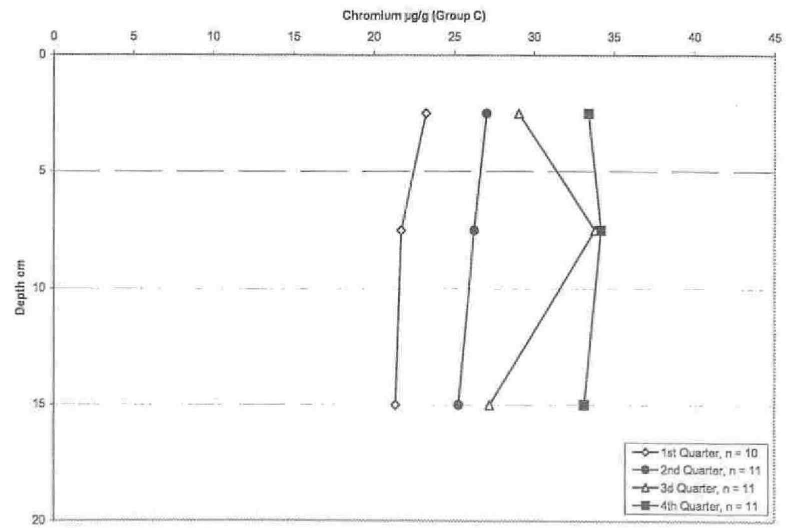


Figure 10.5.4.4c: Coniston, Cr depth profiles, Group C data.

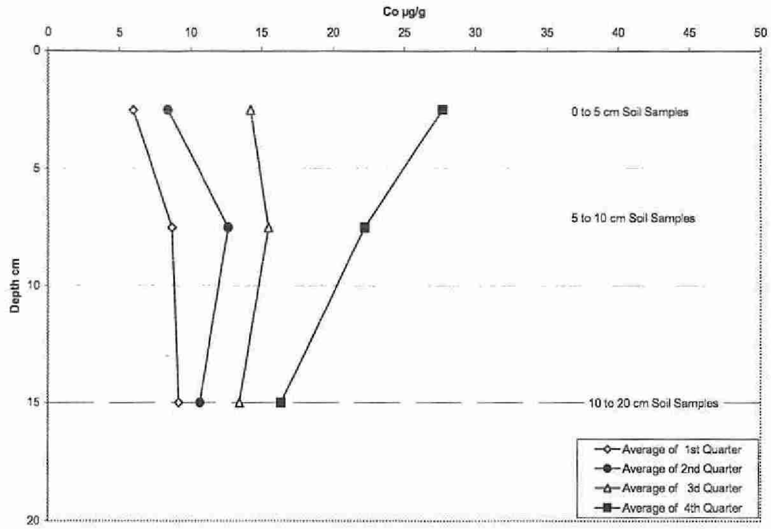


Figure 10.5.4.5: Coniston, Co depth profiles, all data.

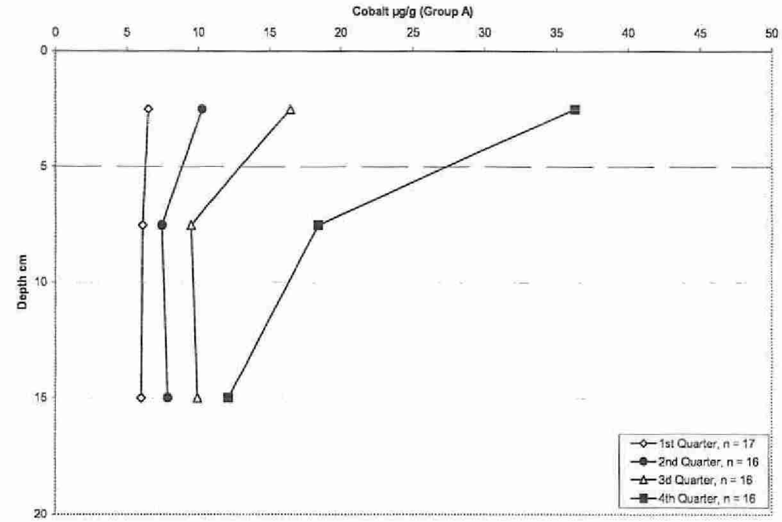


Figure 10.5.4.5a: Coniston, Co depth profiles, Group A data.

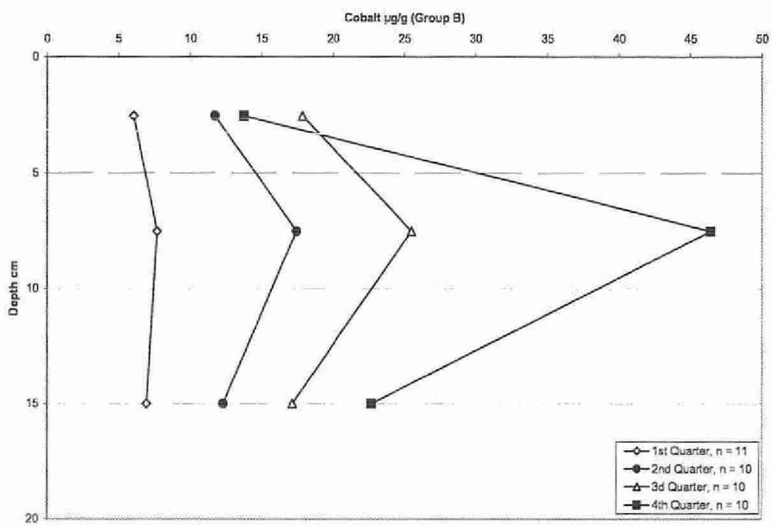


Figure 10.5.4.5b: Coniston, Co depth profiles, Group B data.

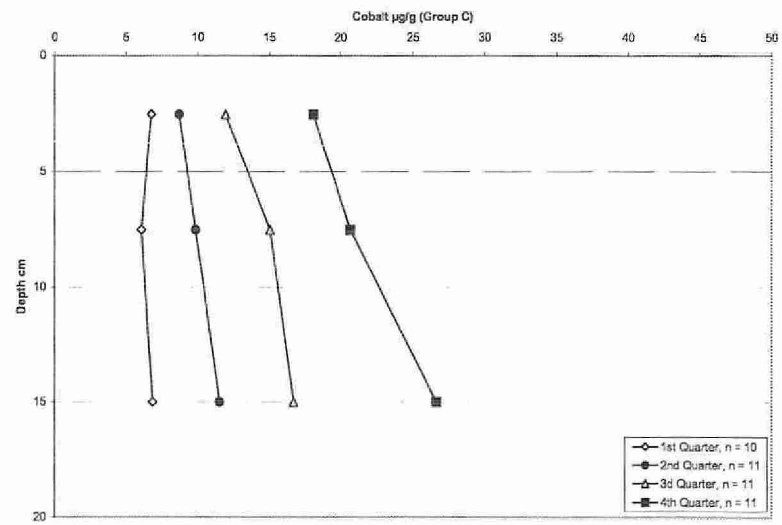


Figure 10.5.4.5c: Coniston, Co depth profiles, Group C data.

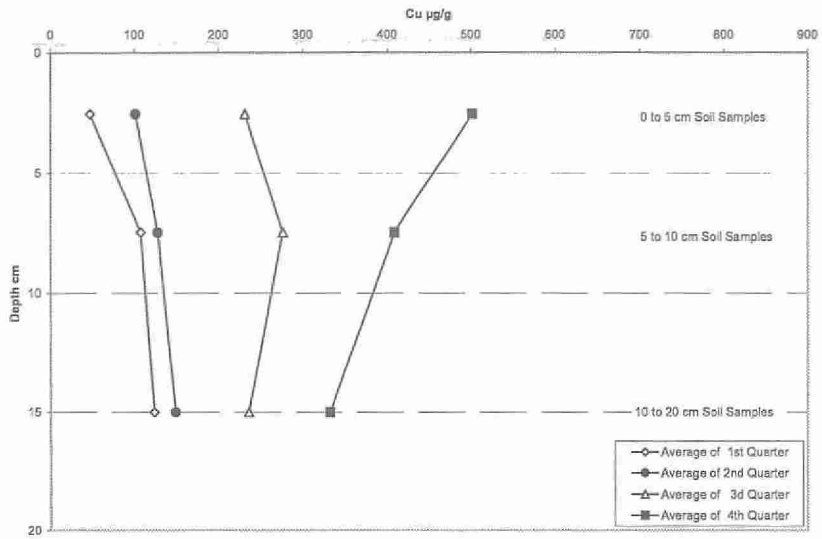


Figure 10.5.4.6: Coniston, Cu depth profiles, all data.

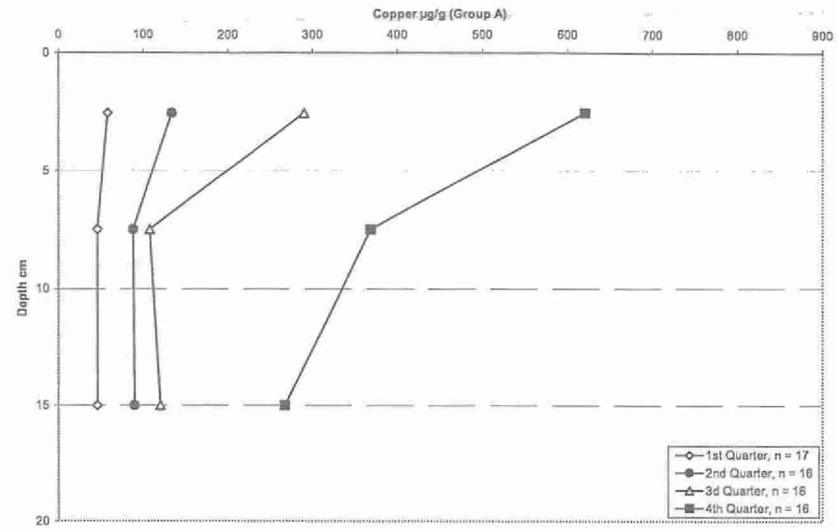


Figure 10.5.4.6a: Coniston, Cu depth profiles, Group A data.

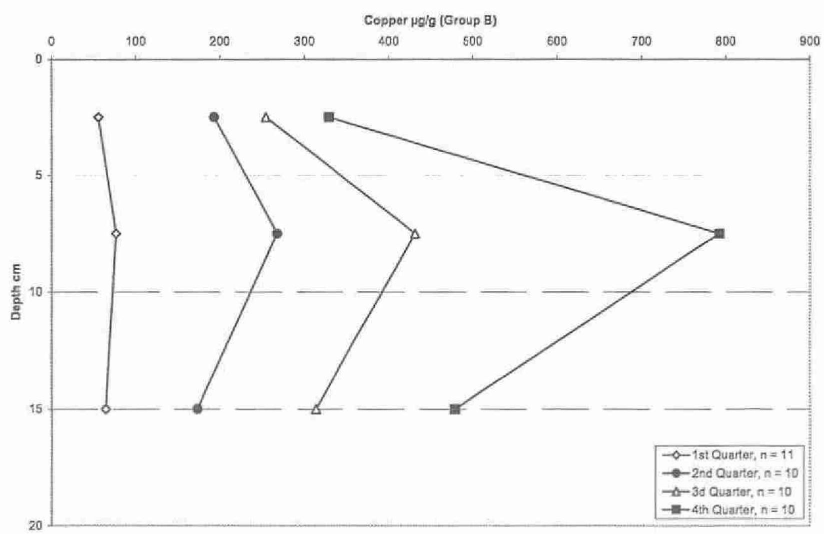


Figure 10.5.4.6b: Coniston, Cu depth profiles, Group B data.

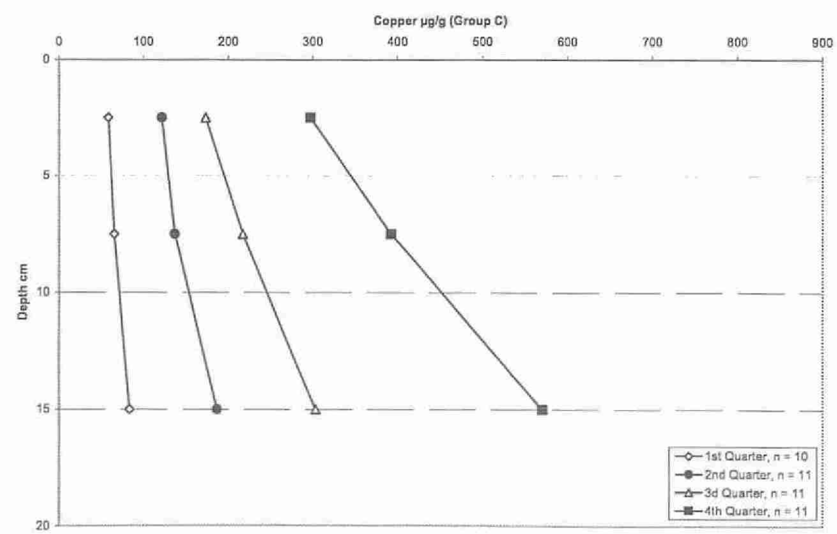


Figure 10.5.4.6c: Coniston, Cu depth profiles, Group C data.

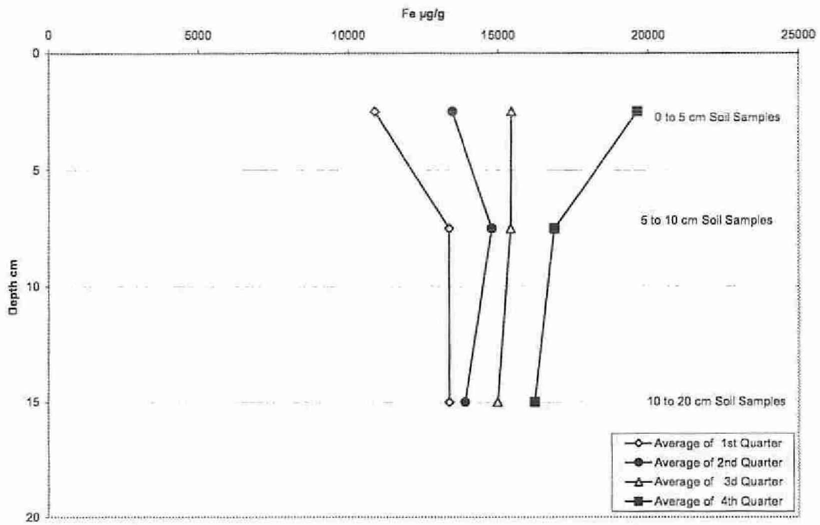


Figure 10.5.4.7: Coniston, Fe depth profiles, all data.

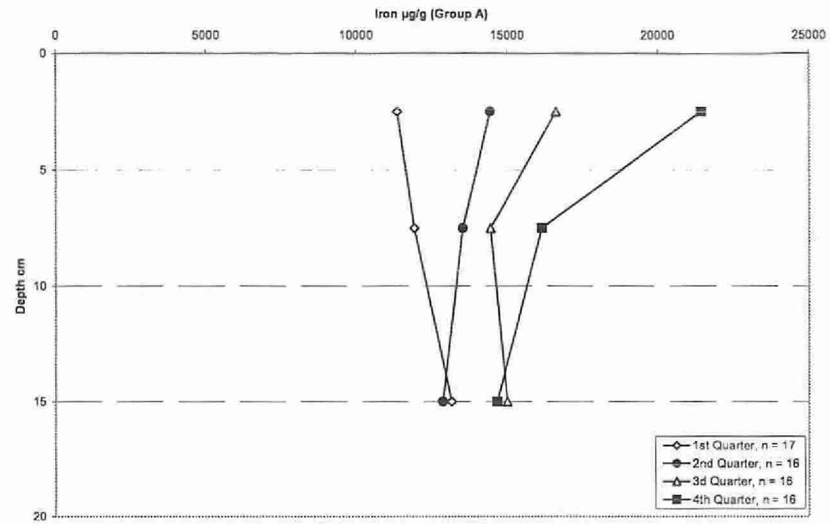


Figure 10.5.4.7a: Coniston, Fe depth profiles, Group A data.

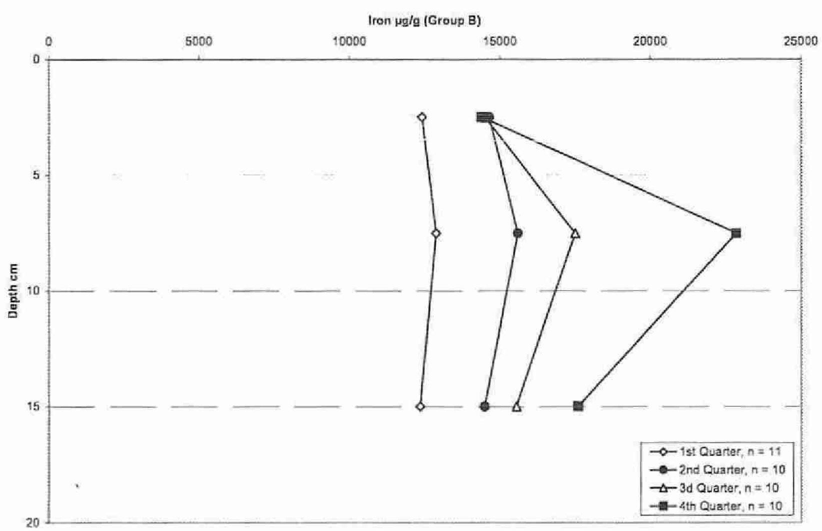


Figure 10.5.4.7b: Coniston, Fe depth profiles, Group B data.

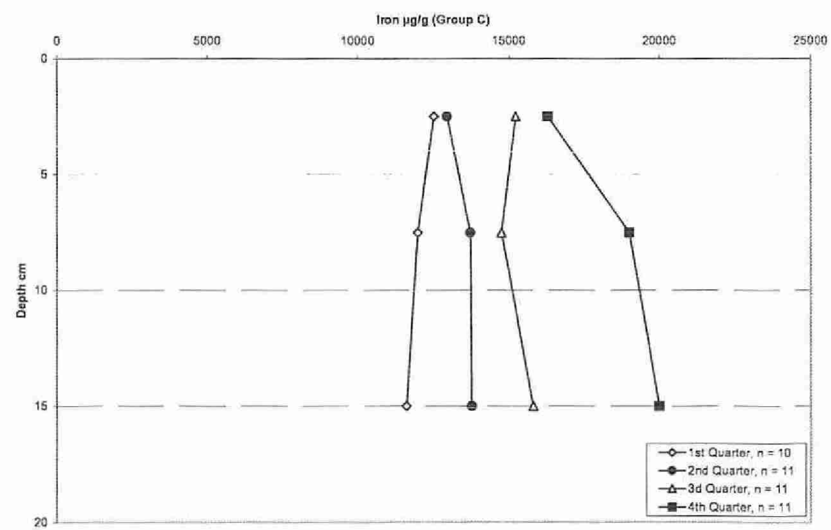


Figure 10.5.4.7c: Coniston, Fe depth profiles, Group C data.

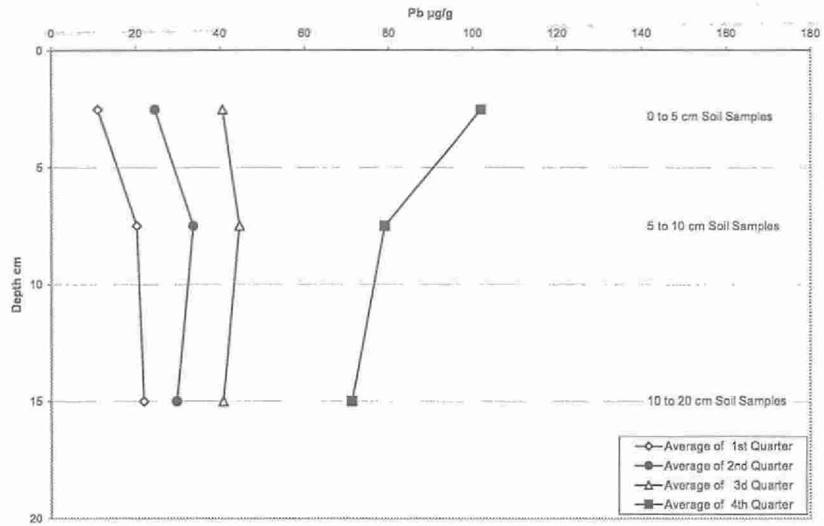


Figure 10.5.4.8: Coniston, Pb depth profiles, all data.

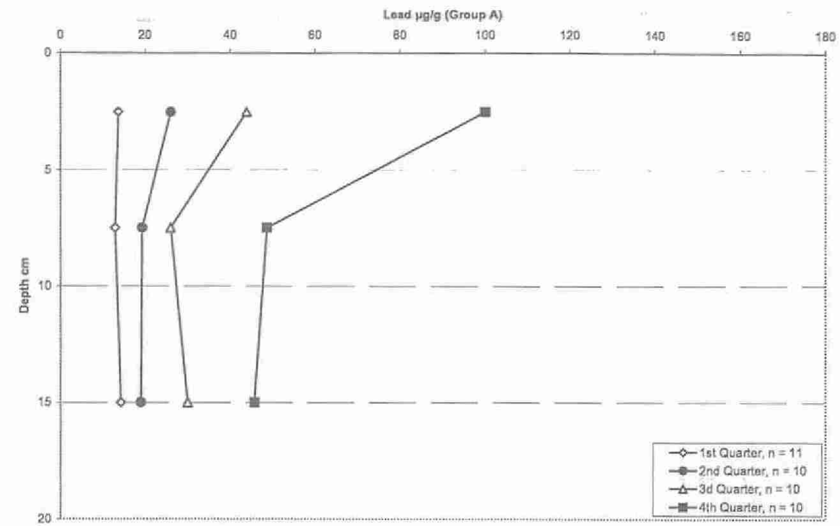


Figure 10.5.4.8a: Coniston, Pb depth profiles, Group A data.

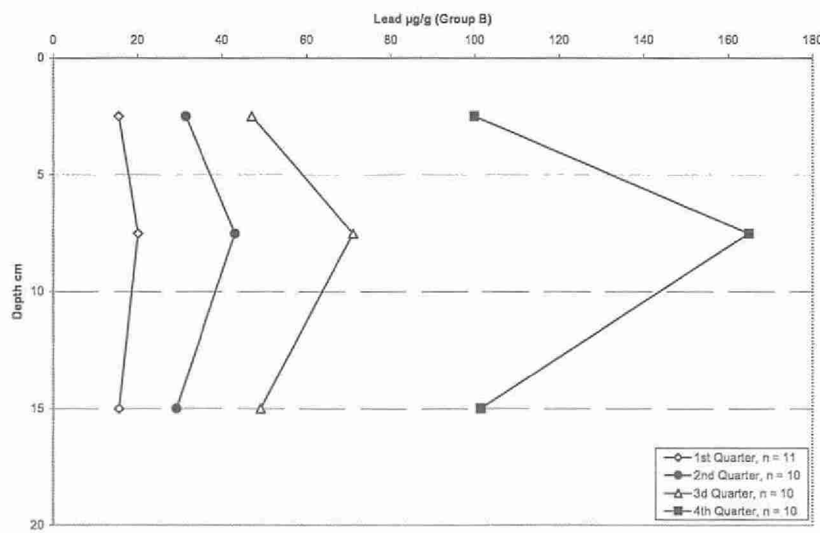


Figure 10.5.4.8b: Coniston, Pb depth profiles, Group B data.

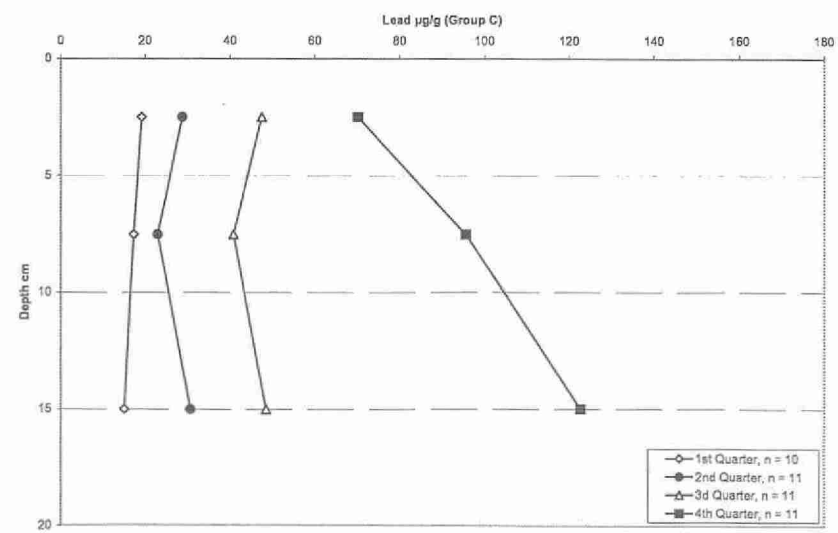


Figure 10.5.4.8c: Coniston, Pb depth profiles, Group C data.

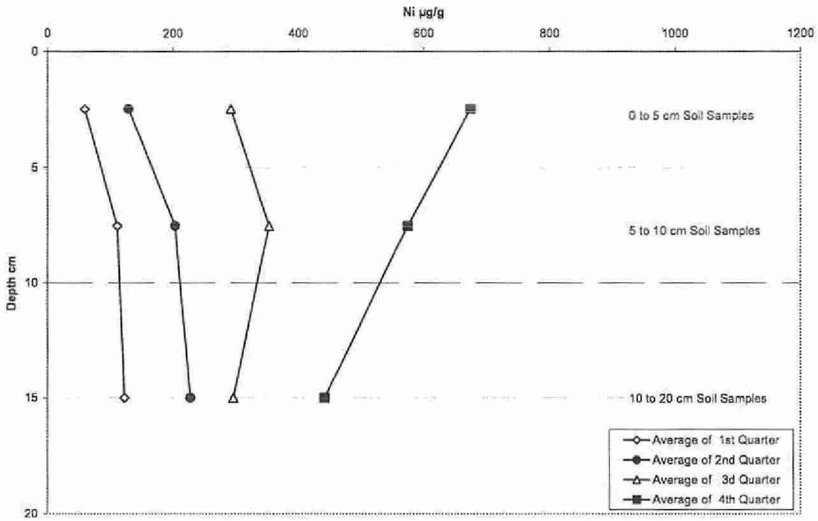


Figure 10.5.4.9: Coniston, Ni depth profiles, all data.

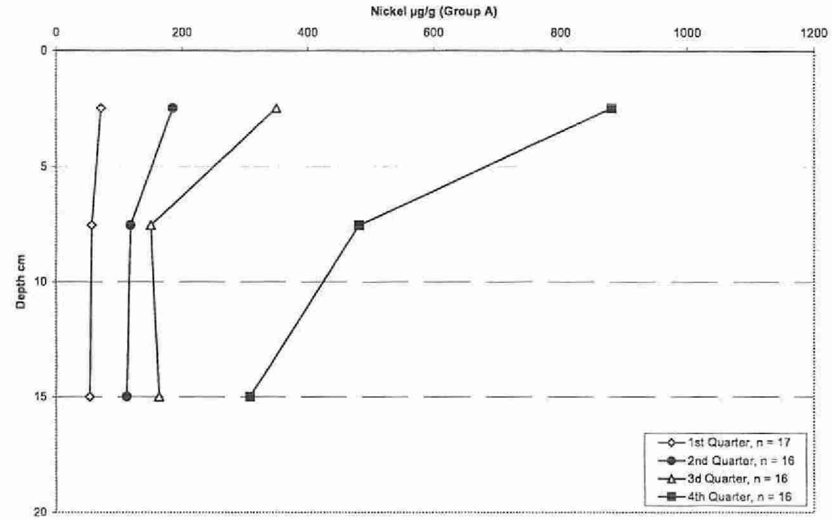


Figure 10.5.4.9a: Coniston, Ni depth profiles, Group A data.

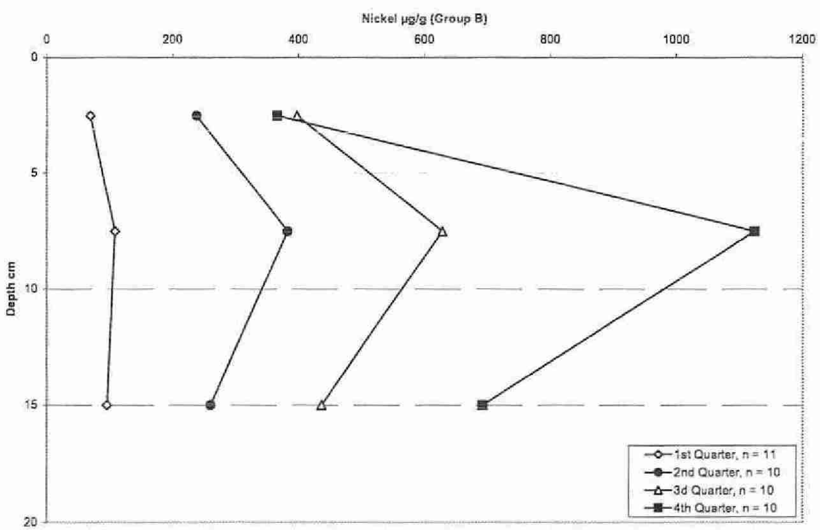


Figure 10.5.4.9b: Coniston, Ni depth profiles, Group B data.

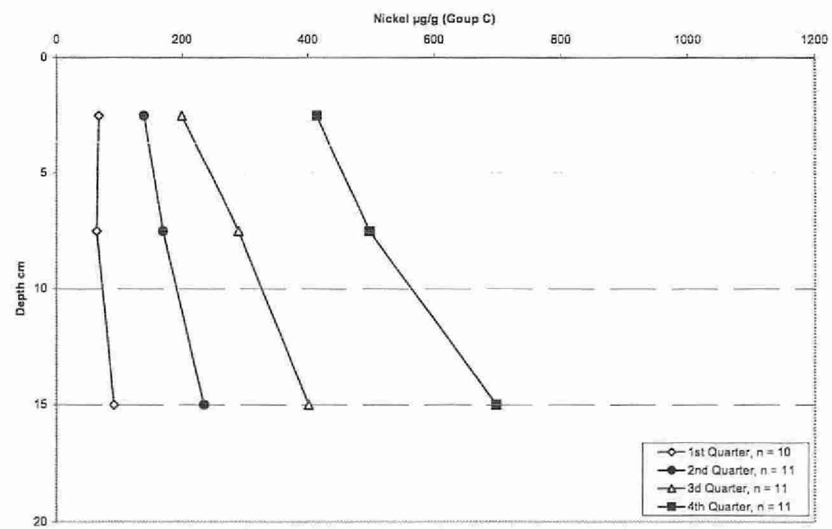


Figure 10.5.4.9c: Coniston, Ni depth profiles, Group C data.

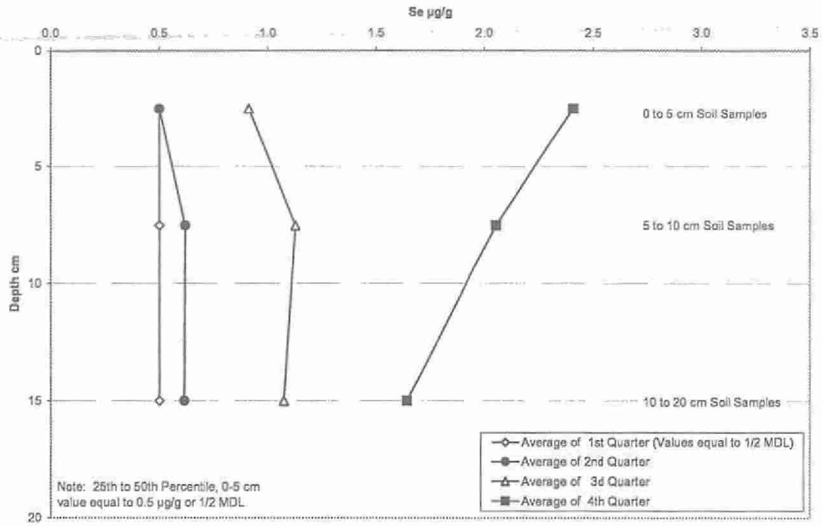


Figure 10.5.4.10: Coniston, Se depth profiles, all data.

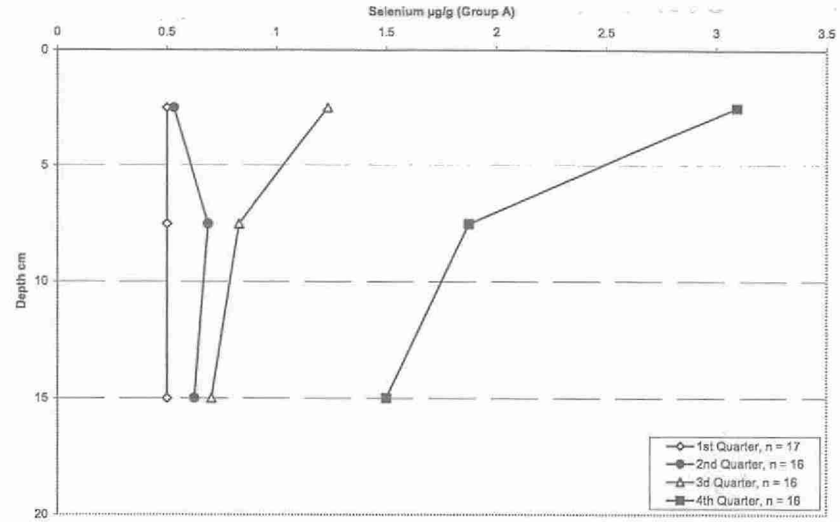


Figure 10.5.4.10a: Coniston, Se depth profiles, Group A data.

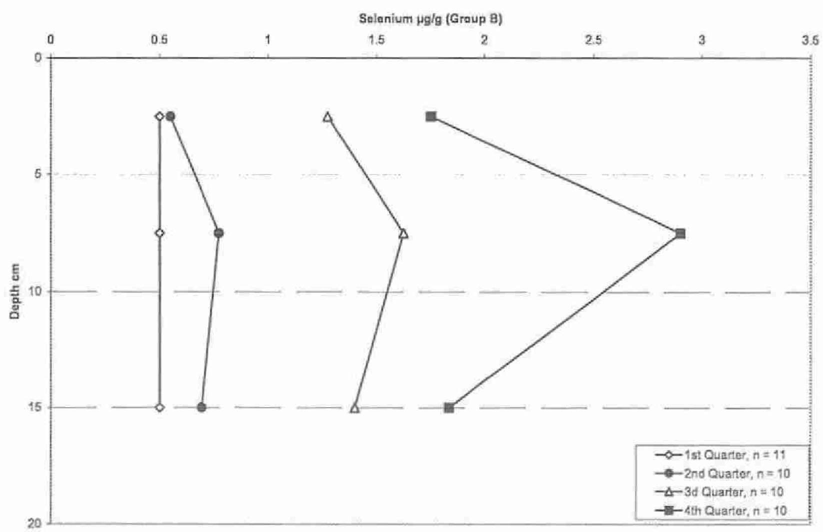


Figure 10.5.4.10b: Coniston, Se depth profiles, Group B data.

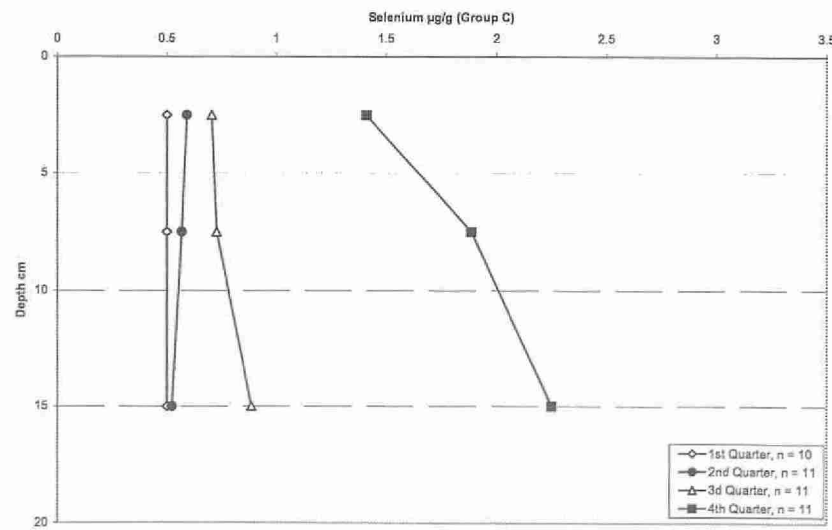


Figure 10.5.4.10c: Coniston, Se depth profiles, Group C data.

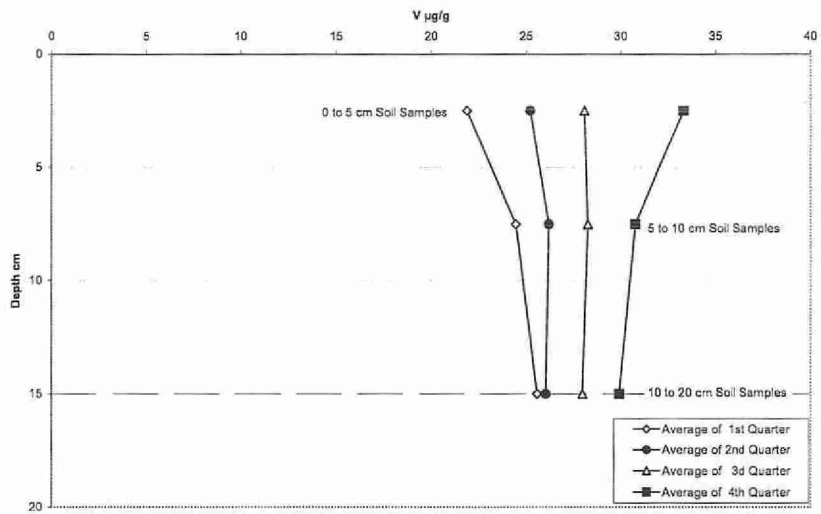


Figure 10.5.4.11: Coniston, V depth profiles, all data.

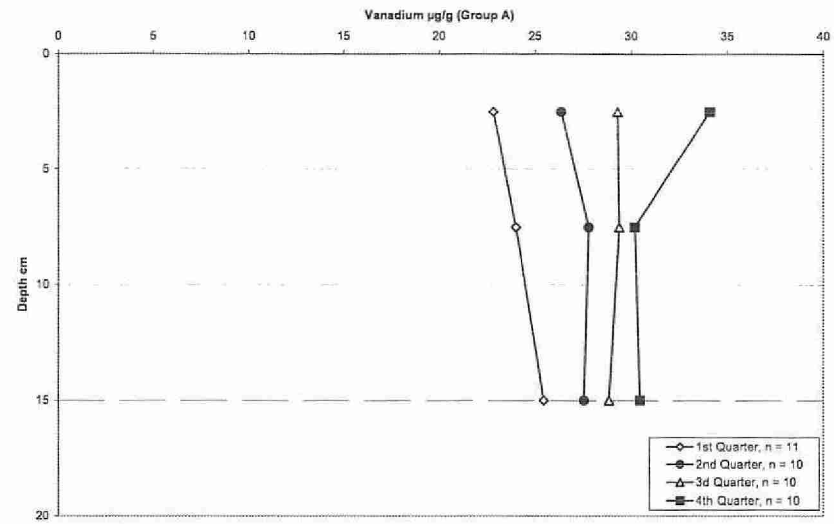


Figure 10.5.4.11a: Coniston, V depth profiles, Group A data.

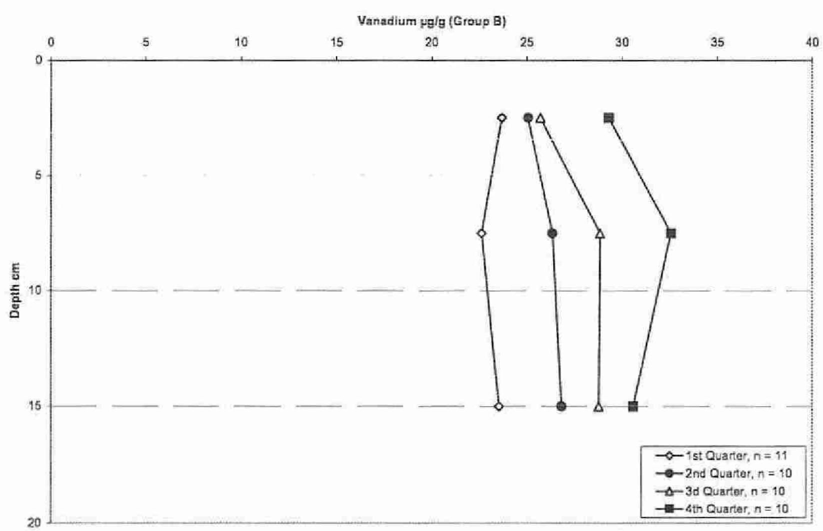


Figure 10.5.4.11b: Coniston, V depth profiles, Group B data.

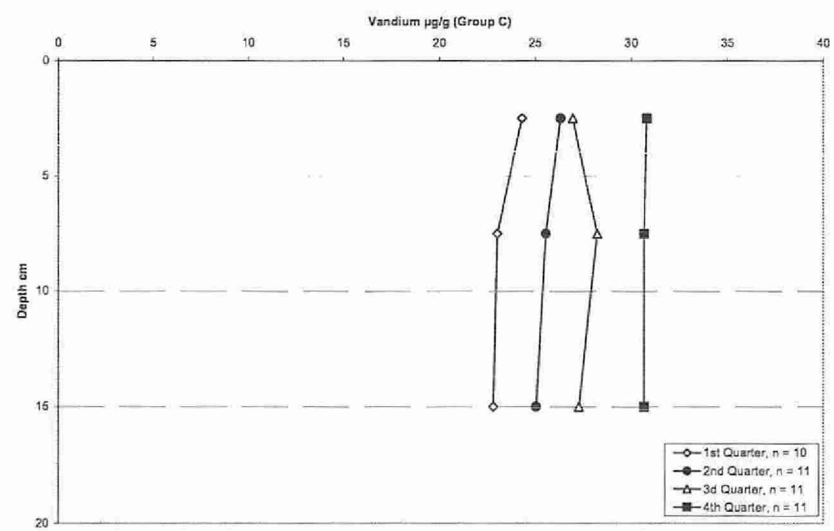


Figure 10.5.4.11c: Coniston, V depth profiles, Group C data.

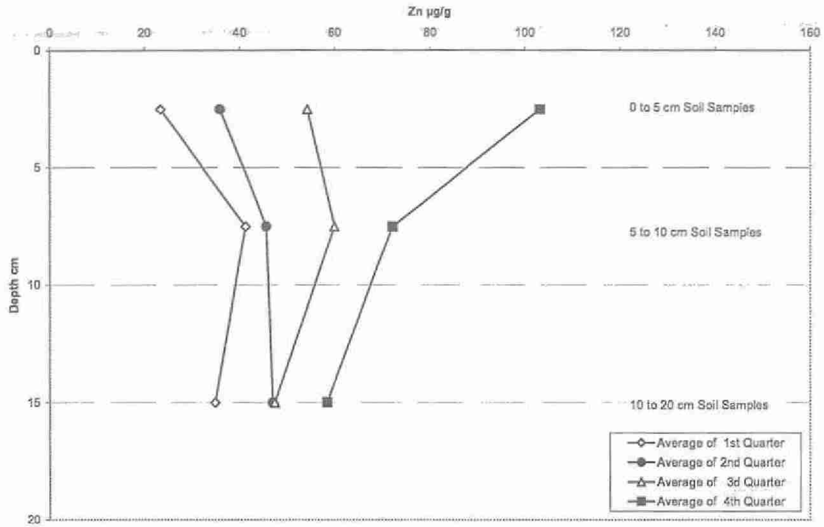


Figure 10.5.4.12: Coniston, Zn depth profiles, all data.

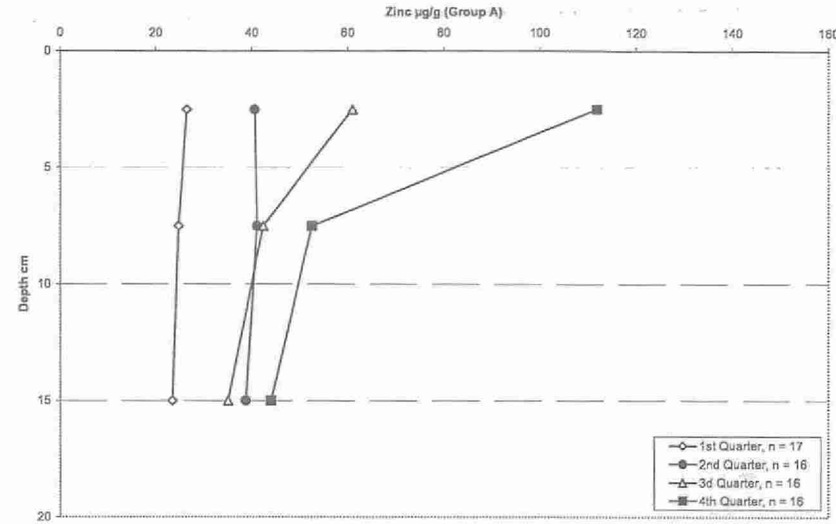


Figure 10.5.4.12a: Coniston, Zn depth profiles, Group A data.

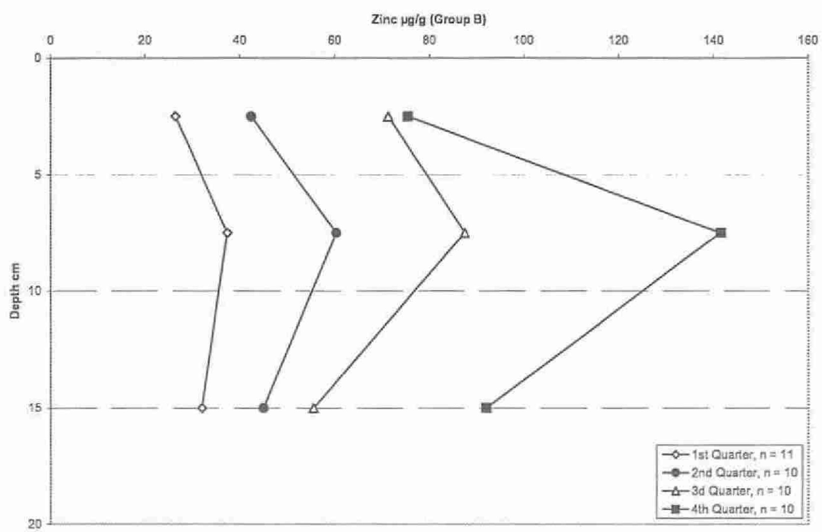


Figure 10.5.4.12b: Coniston, Zn depth profiles, Group B data.

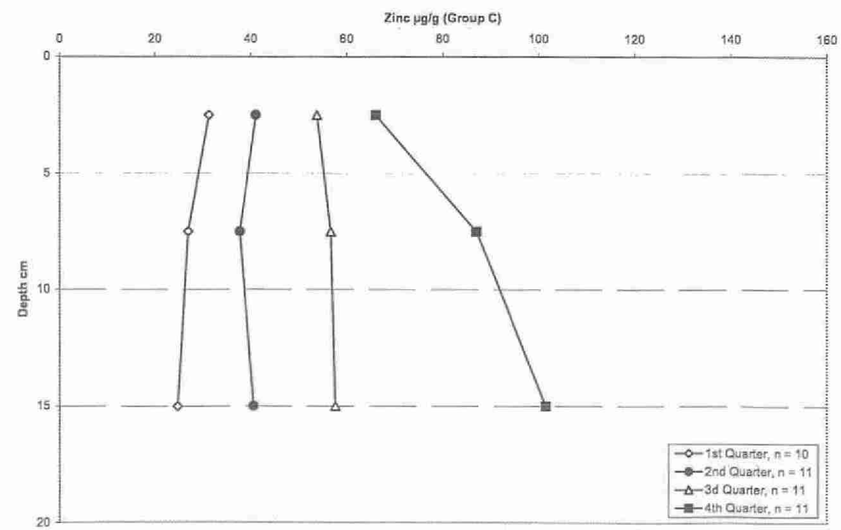


Figure 10.5.4.12c: Coniston, Zn depth profiles, Group C data.

10.5.5 Falconbridge

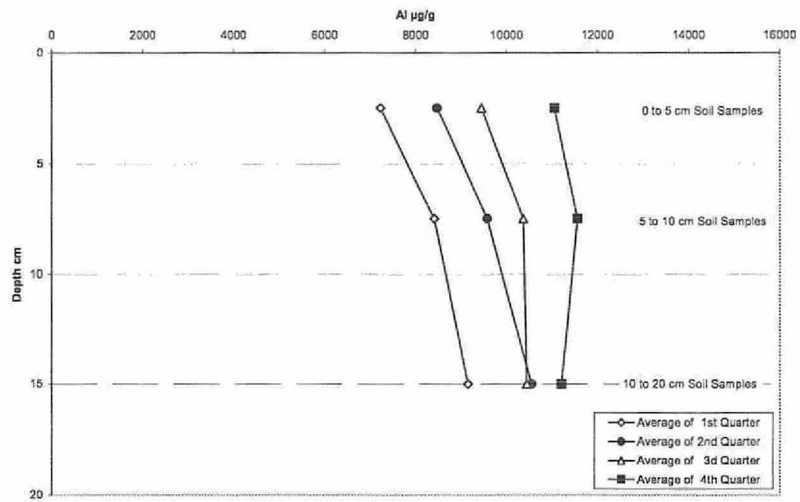


Figure 10.5.5.1: Falconbridge, Al depth profiles, all data.

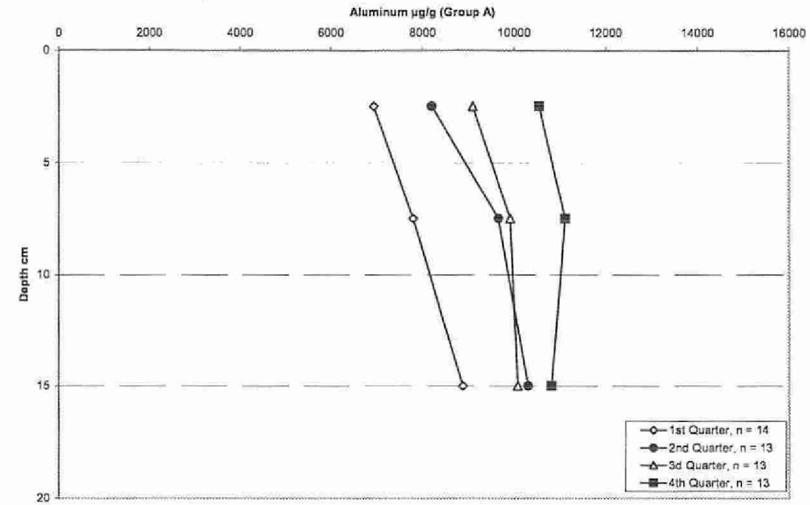


Figure 10.5.5.1a: Falconbridge, Al depth profiles, Group A data.

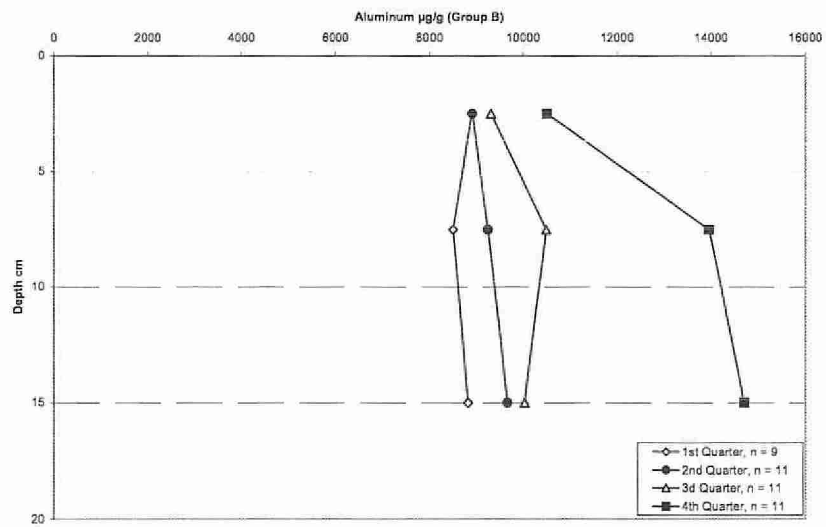


Figure 10.5.5.1b: Falconbridge, Al depth profiles, Group B data.

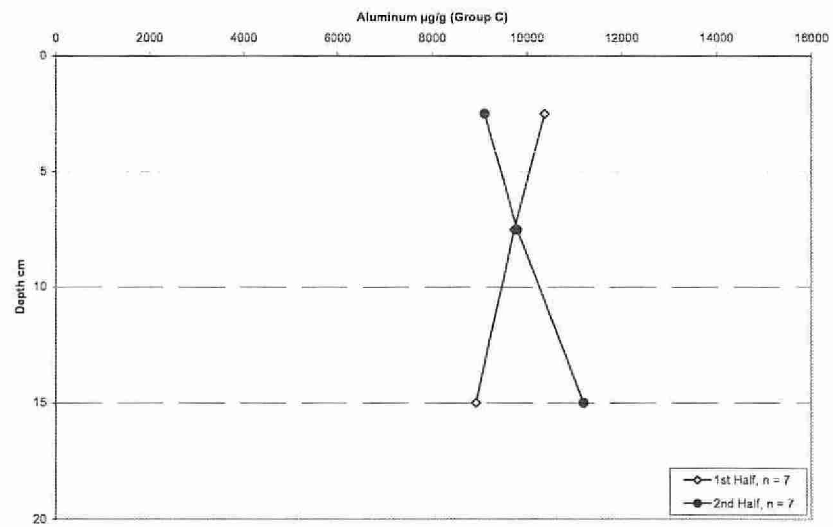


Figure 10.5.5.1c: Falconbridge, Al depth profiles, Group C data.

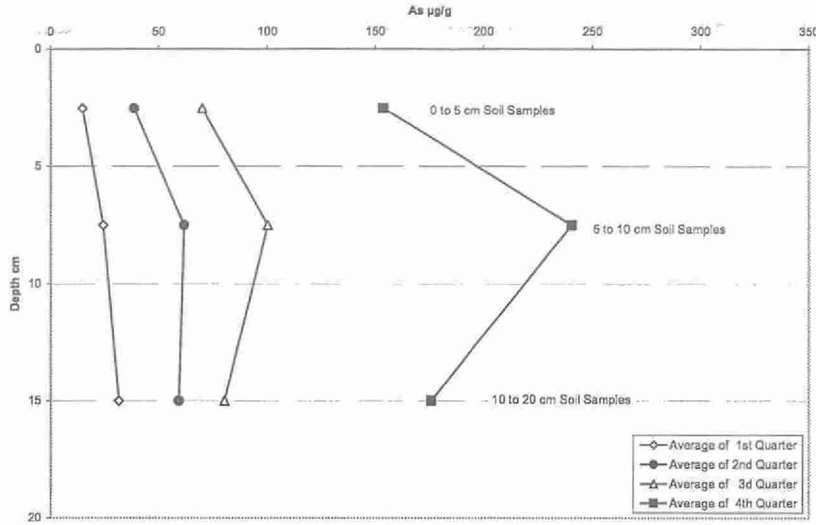


Figure 10.5.5.2: Falconbridge, As depth profiles, all data.

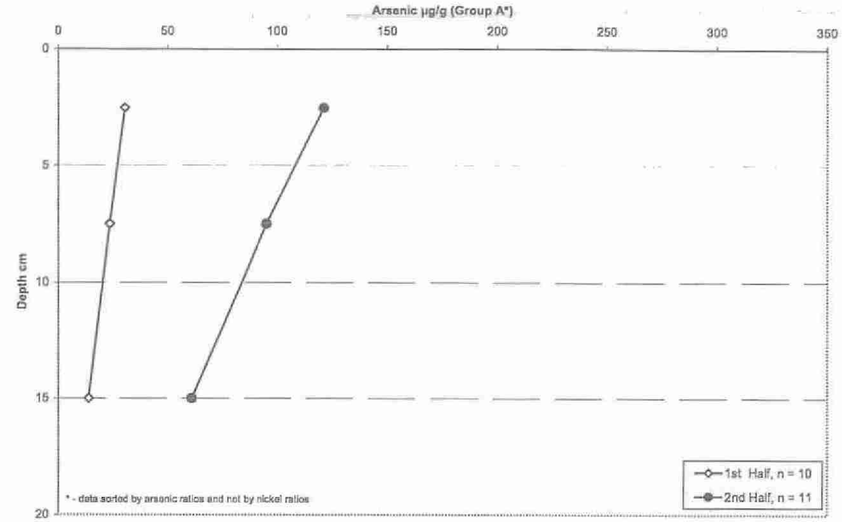


Figure 10.5.5.2a: Falconbridge, As depth profiles, Group A data.

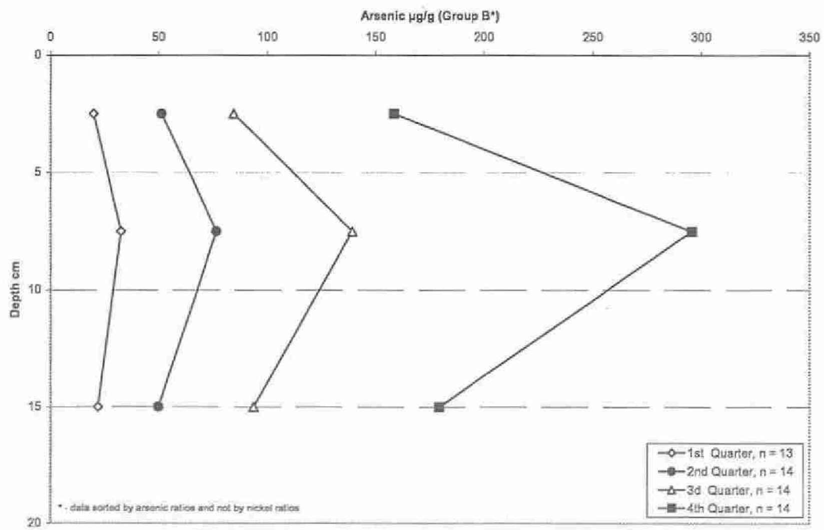


Figure 10.5.5.2b: Falconbridge, As depth profiles, Group B data.

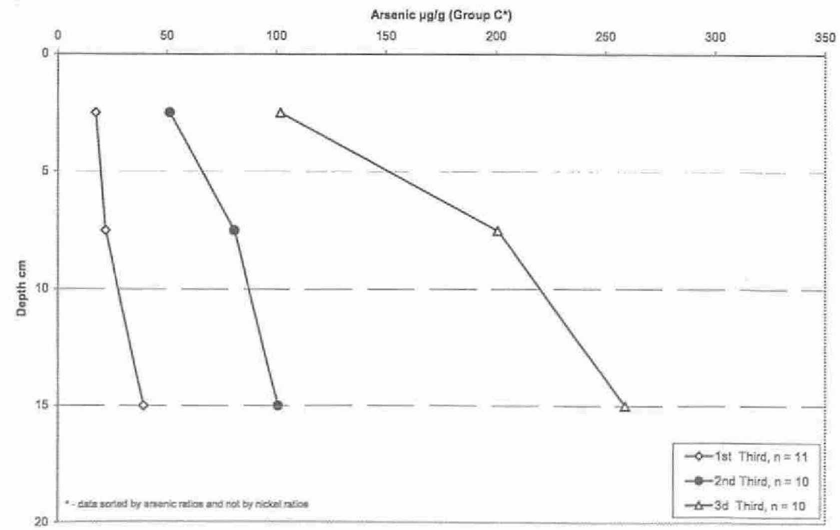


Figure 10.5.5.2c: Falconbridge, As depth profiles, Group C data.

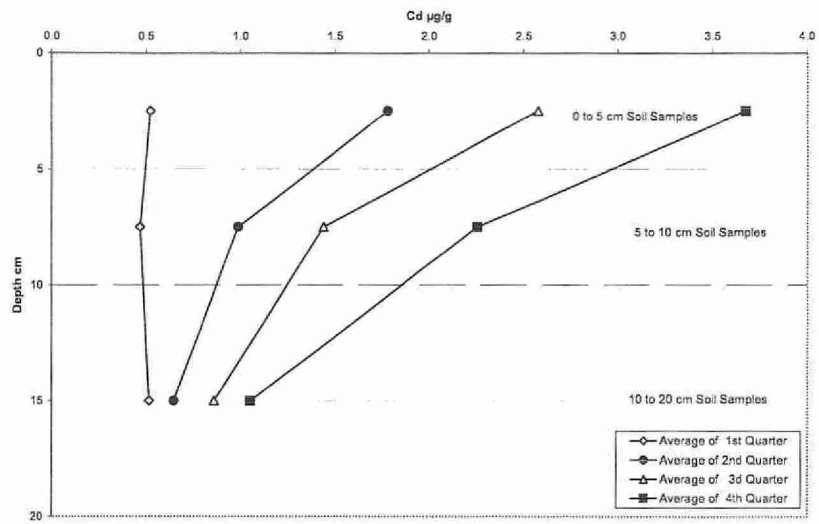


Figure 10.5.5.3: Falconbridge, Cd depth profiles, all data.

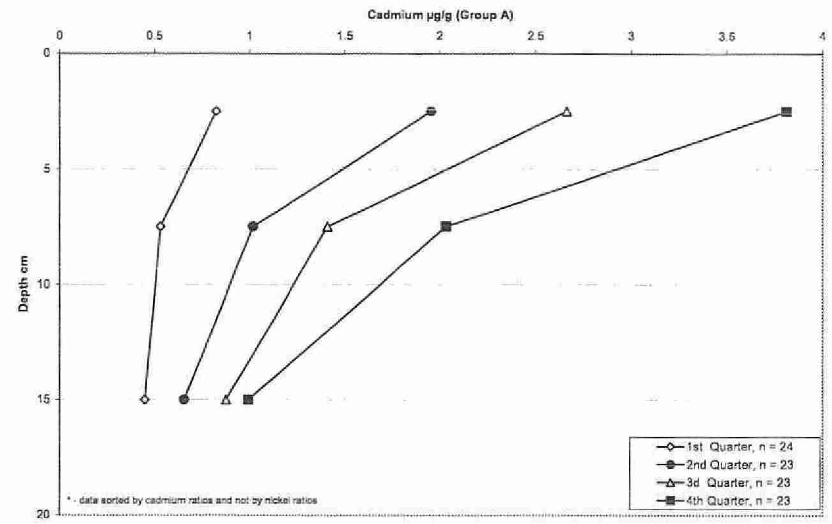


Fig. 10.5.5.3a: Falconbridge, Cd depth profiles, Group A data.

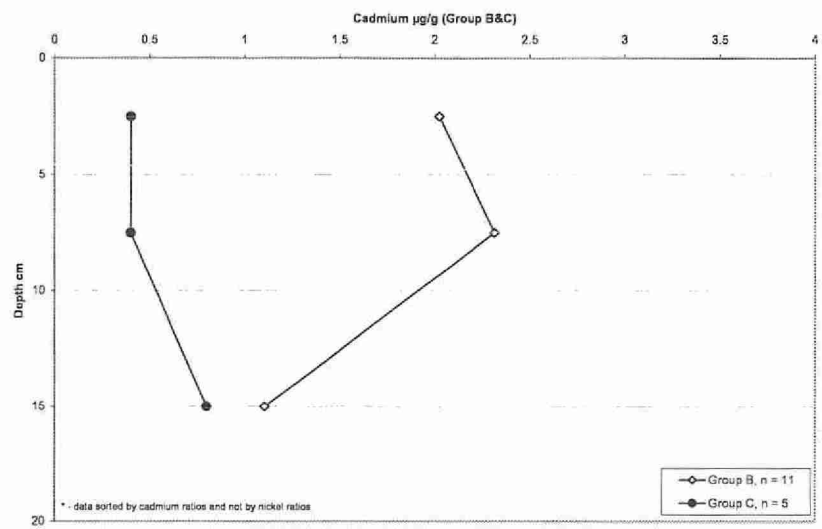


Figure 10.5.5.3b & 10.5.5.3c: Falconbridge, Cd depth profiles, Group B & C data.

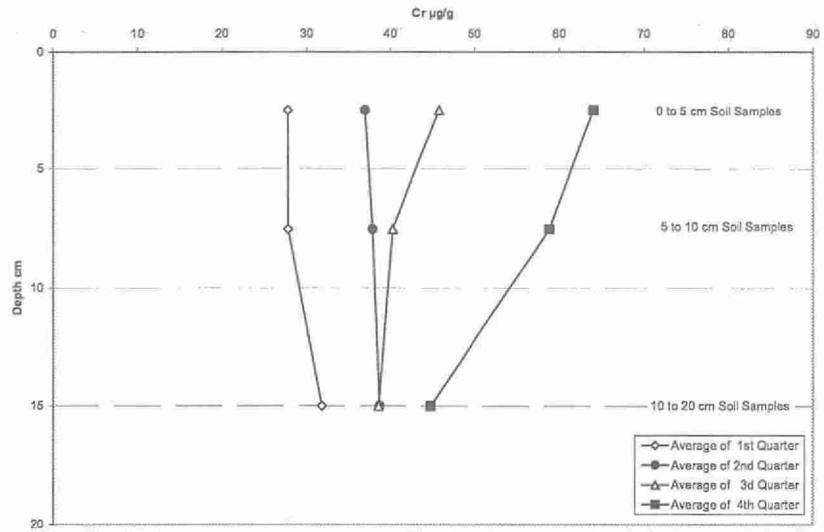


Figure 10.5.5.4: Falconbridge, Cr depth profiles, all data.

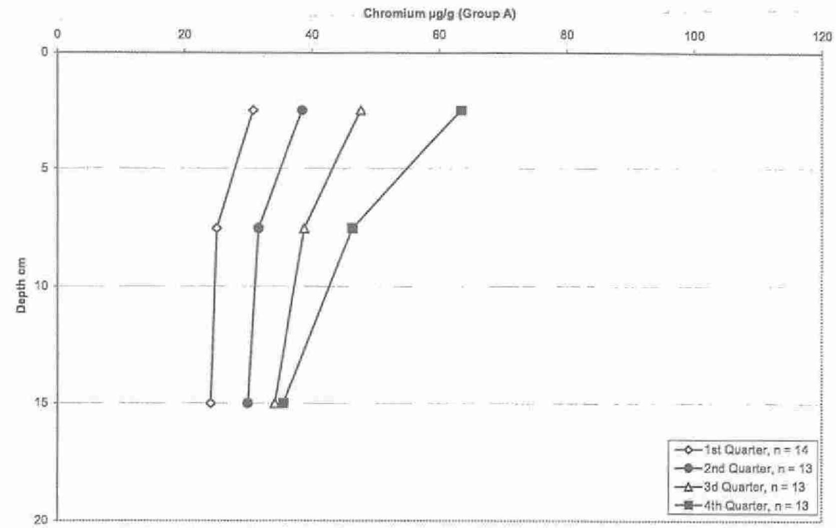


Fig. 10.5.5.4a: Falconbridge, Cr depth profiles, Group A data.

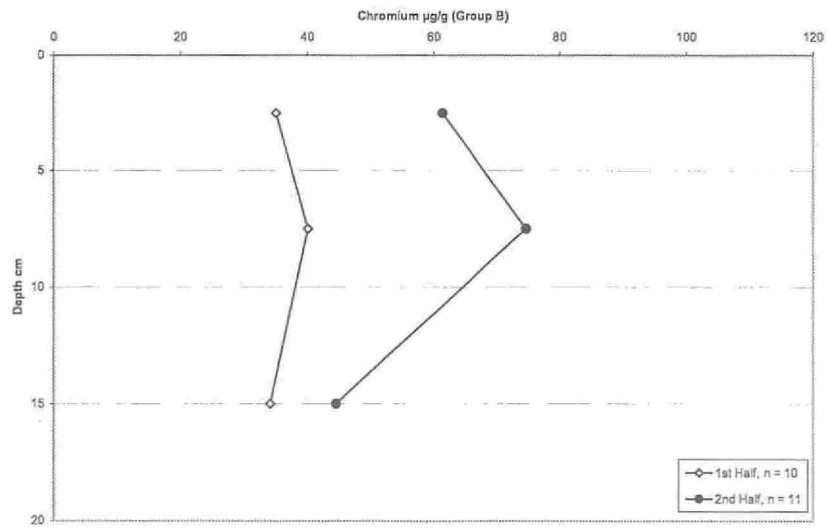


Fig. 10.5.5.4b: Falconbridge, Cr depth profiles, Group B data.

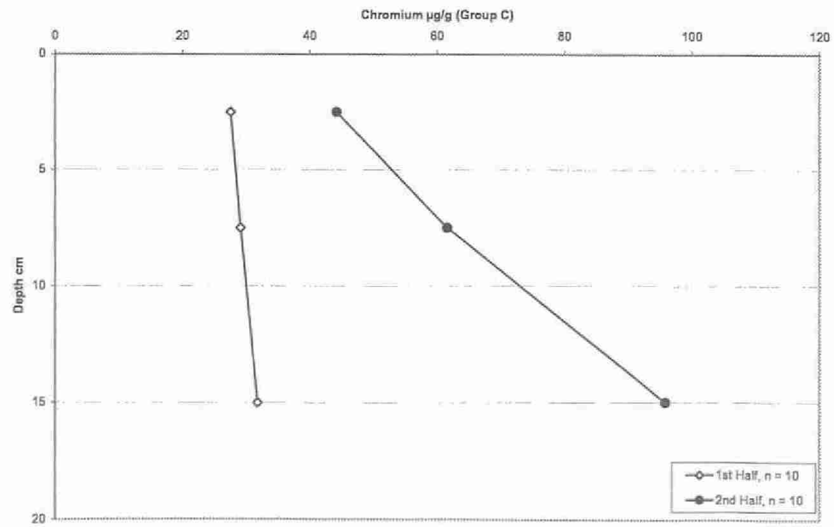


Fig. 10.5.5.4c: Falconbridge, Cr depth profiles, Group C data.

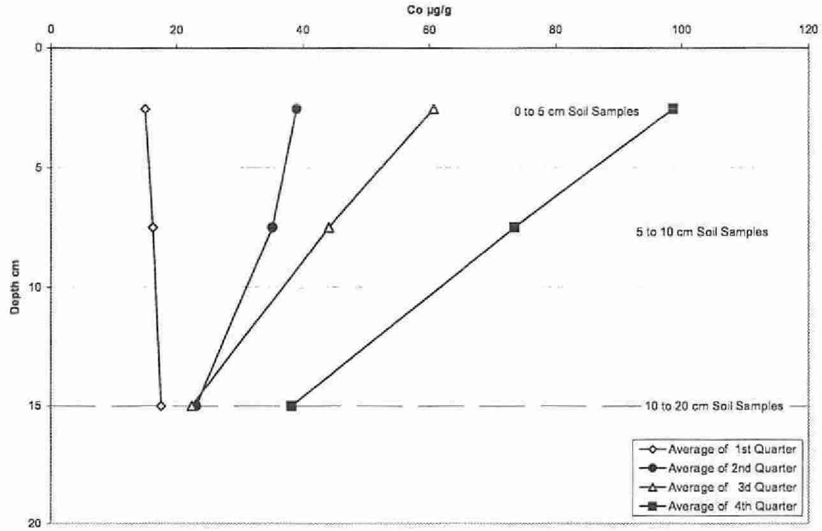


Figure 10.5.5.5: Falconbridge, Co depth profiles, all data.

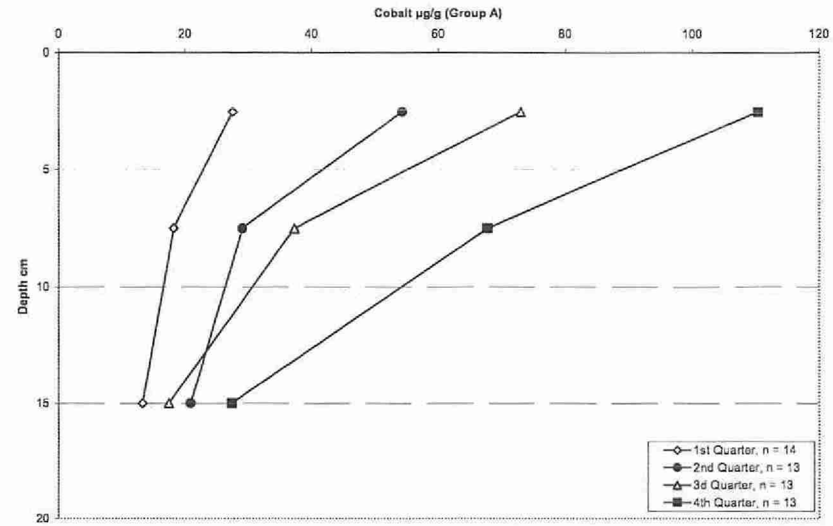


Figure 10.5.5.5a: Falconbridge, Co depth profiles, Group A data.

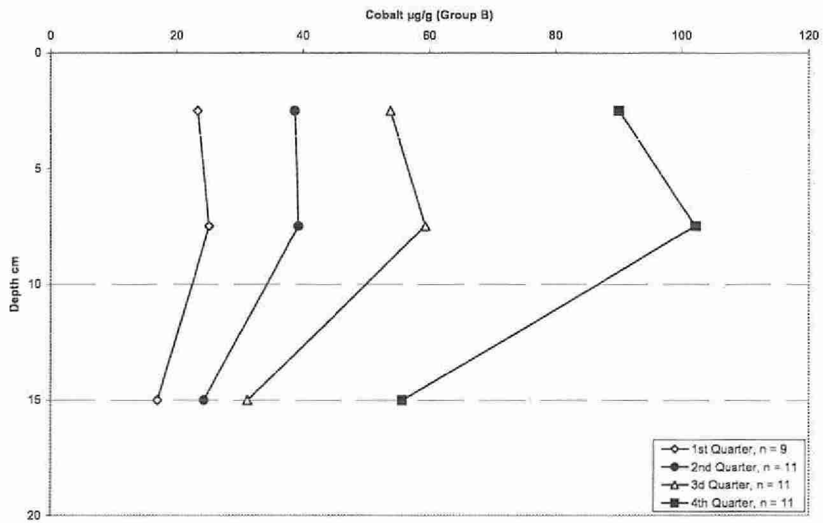


Figure 10.5.5.5b: Falconbridge, Co depth profiles, Group B data.

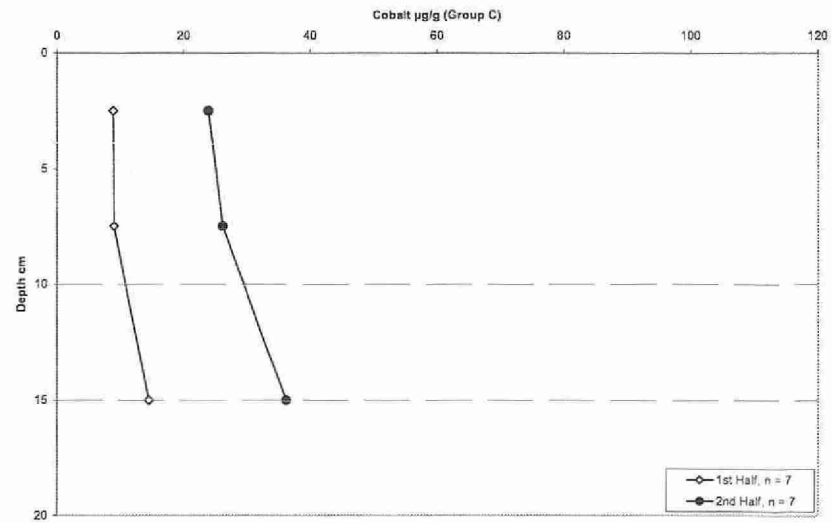


Figure 10.5.5.5c: Falconbridge, Co depth profiles, Group C data.

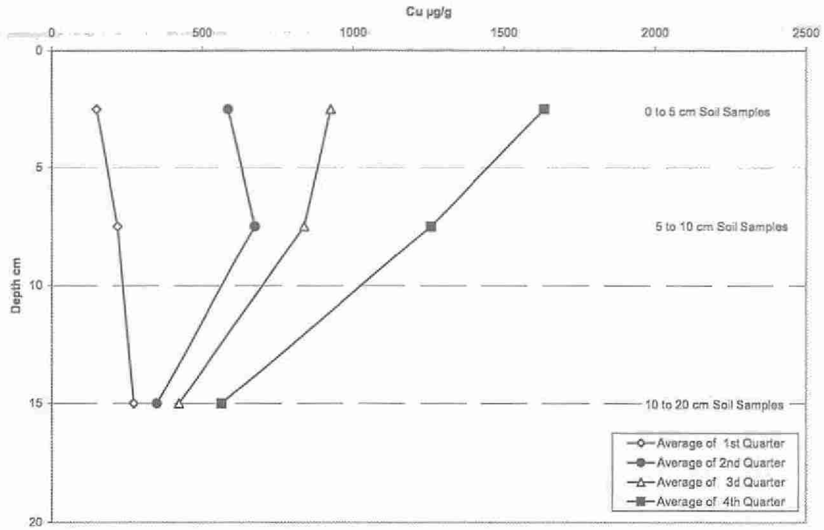


Figure 10.5.5.6: Falconbridge, Cu depth profiles, all data.

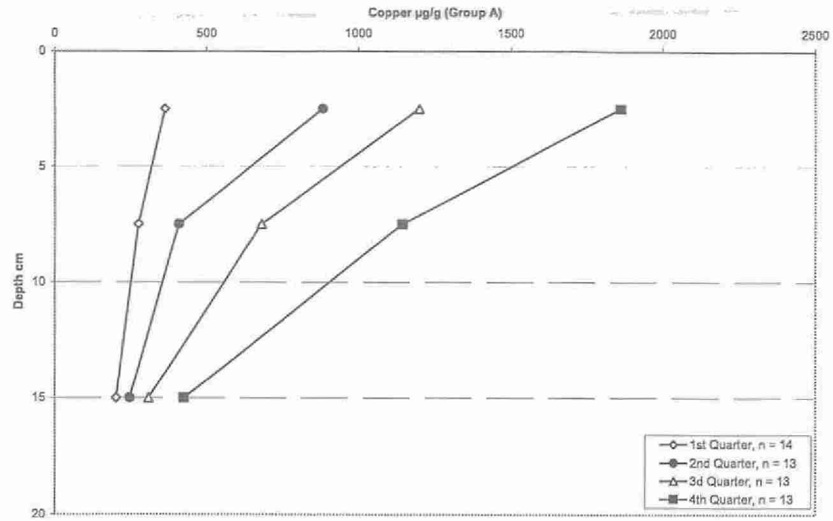


Figure 10.5.5.6a: Falconbridge, Cu depth profiles, Group A data.

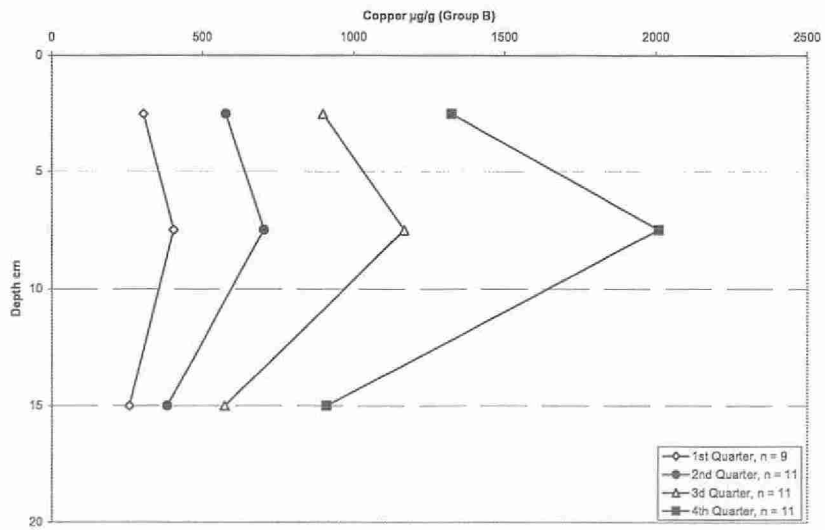


Figure 10.5.5.6b: Falconbridge, Cu depth profiles, Group B data.

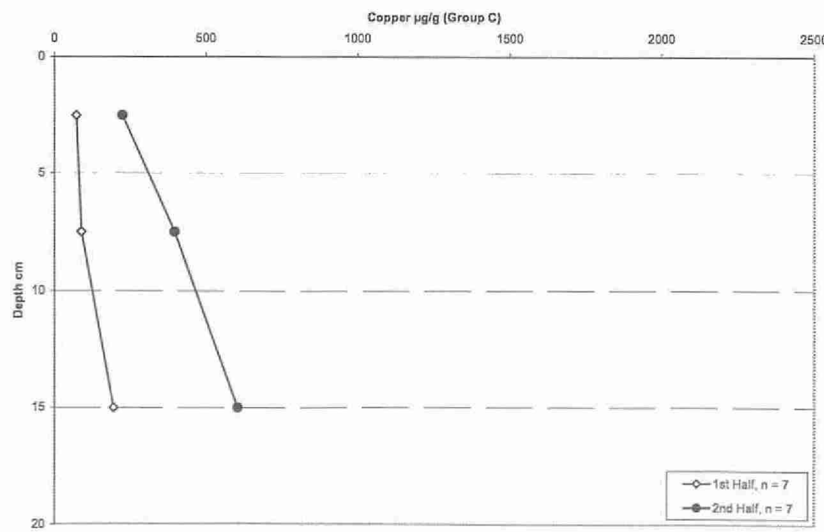


Figure 10.5.5.6c: Falconbridge, Cu depth profiles, Group C data.

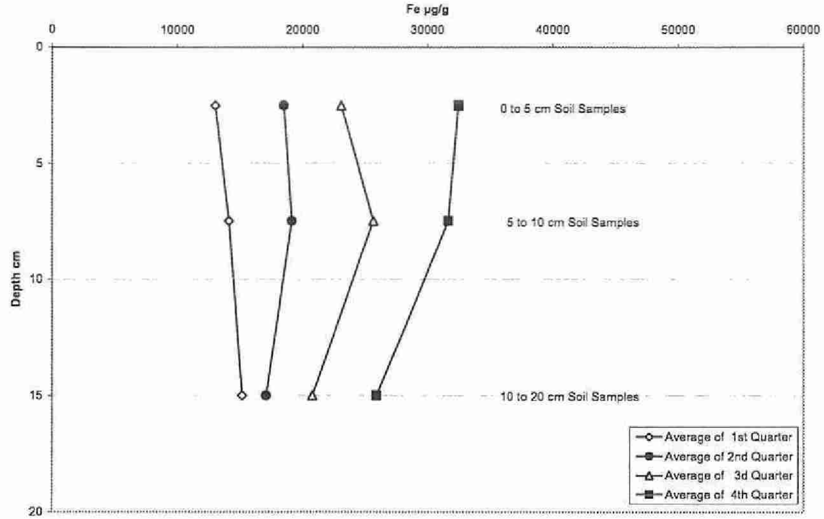


Figure 10.5.5.7: Falconbridge, Fe depth profiles, all data.

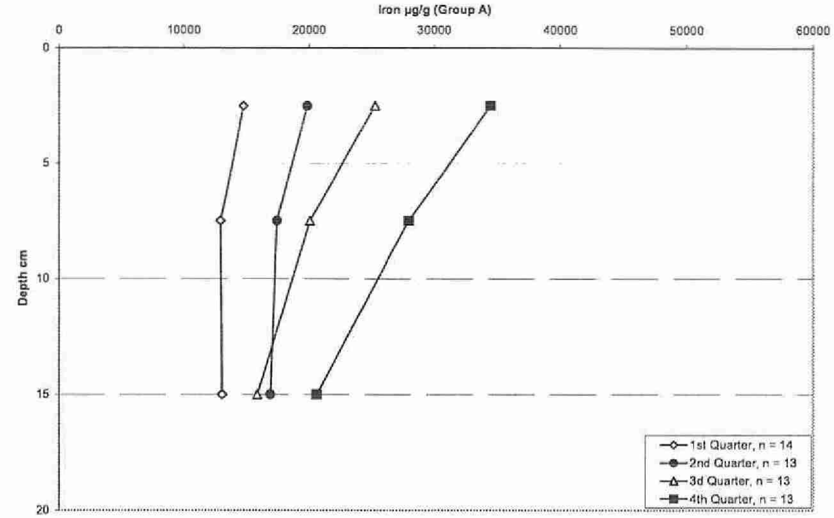


Figure 10.5.5.7a: Falconbridge, Fe depth profiles, Group A data.

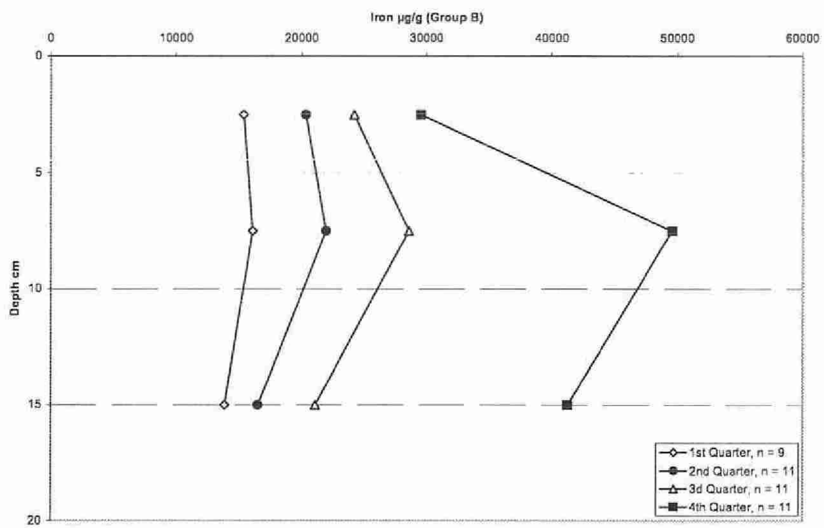


Figure 10.5.5.7b: Falconbridge, Fe depth profiles, Group B data.

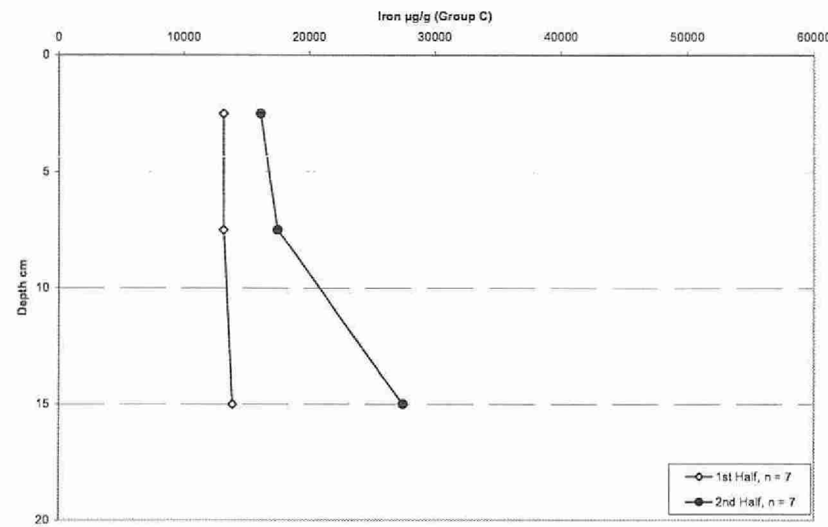


Figure 10.5.5.7c: Falconbridge, Fe depth profiles, Group C data.

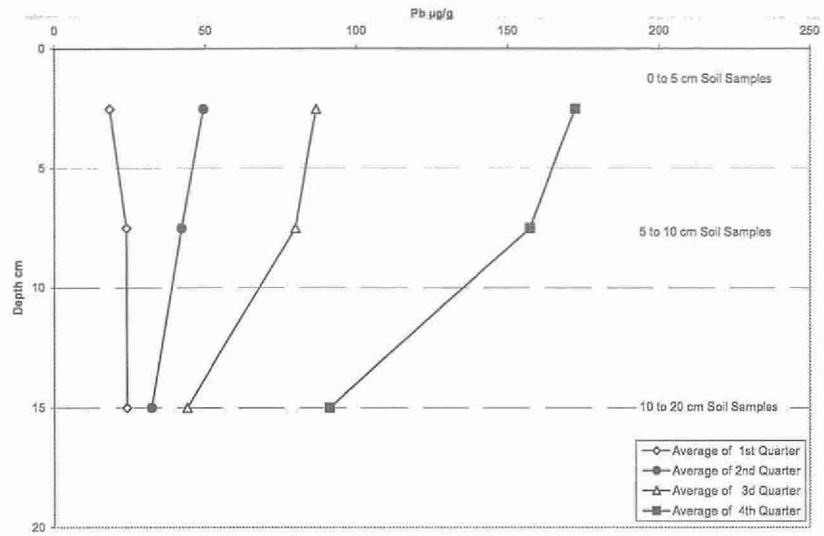


Figure 10.5.5.8: Falconbridge, Pb depth profiles, all data.

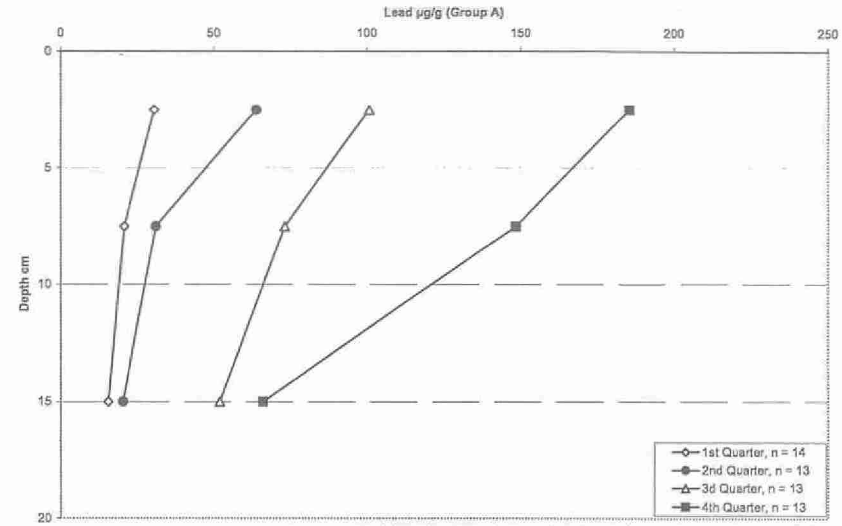


Figure 10.5.5.8a: Falconbridge, Pb depth profiles, Group A data.

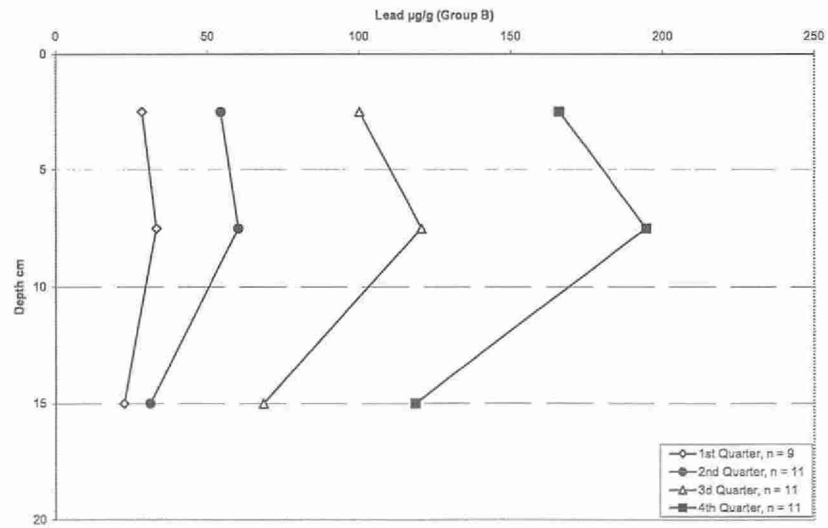


Figure 10.5.5.8b: Falconbridge, Pb depth profiles, Group B data.

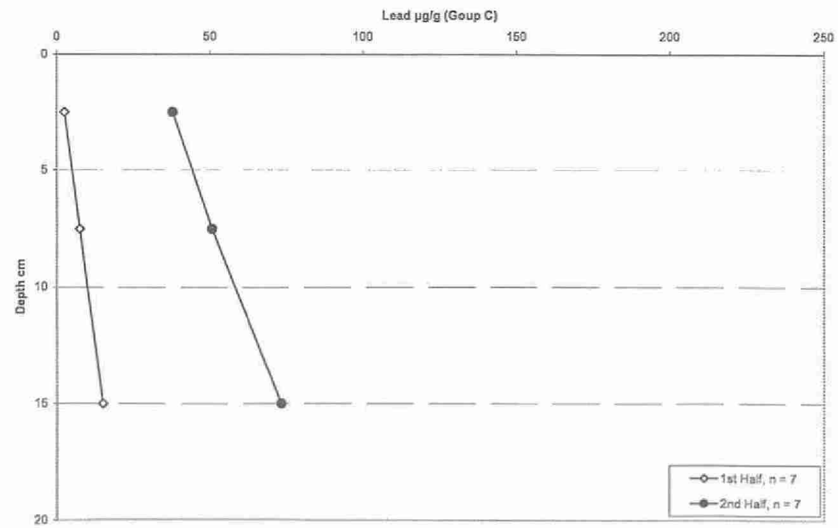


Figure 10.5.5.8c: Falconbridge, Pb depth profiles, Group C data.

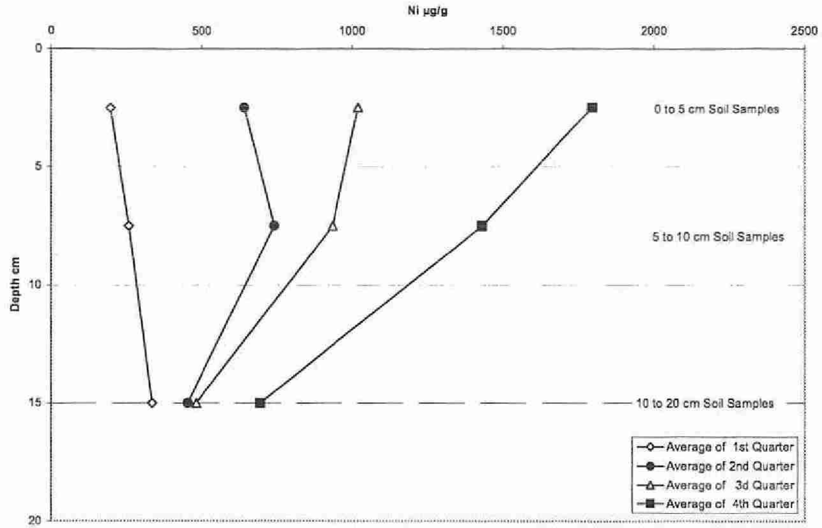


Figure 10.5.5.9: Falconbridge, Ni depth profiles, all data.

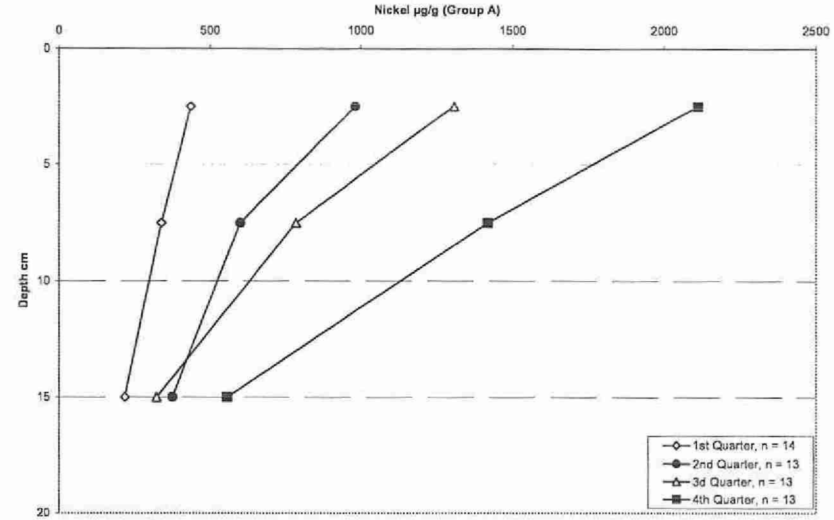


Figure 10.5.5.9a: Falconbridge, Ni depth profiles, Group A data.

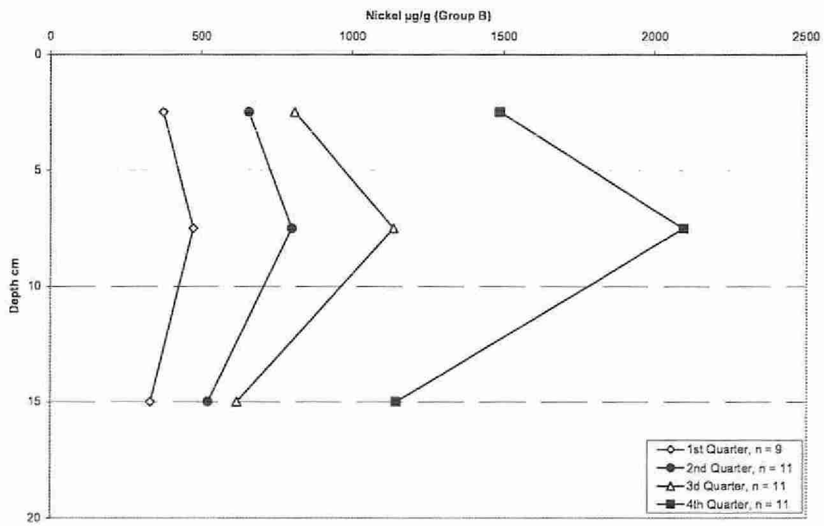


Figure 10.5.5.9b: Falconbridge, Ni depth profiles, Group B data.

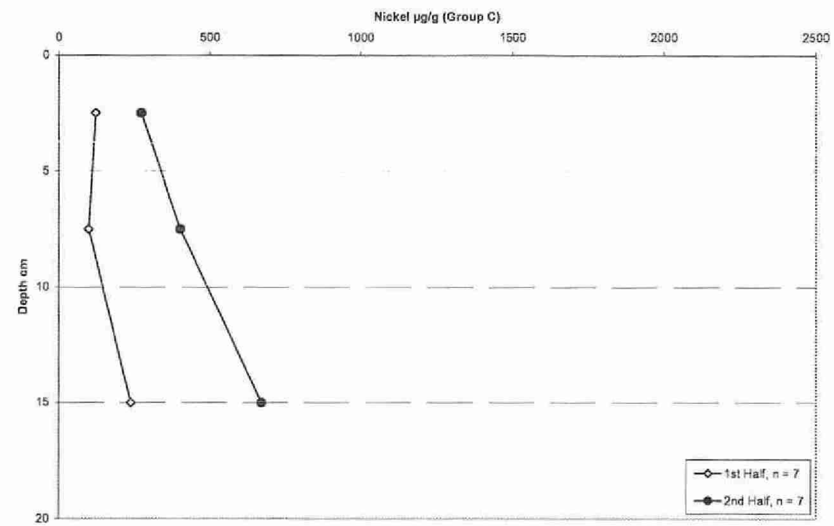


Figure 10.5.5.9c: Falconbridge, Ni depth profiles, Group C data.

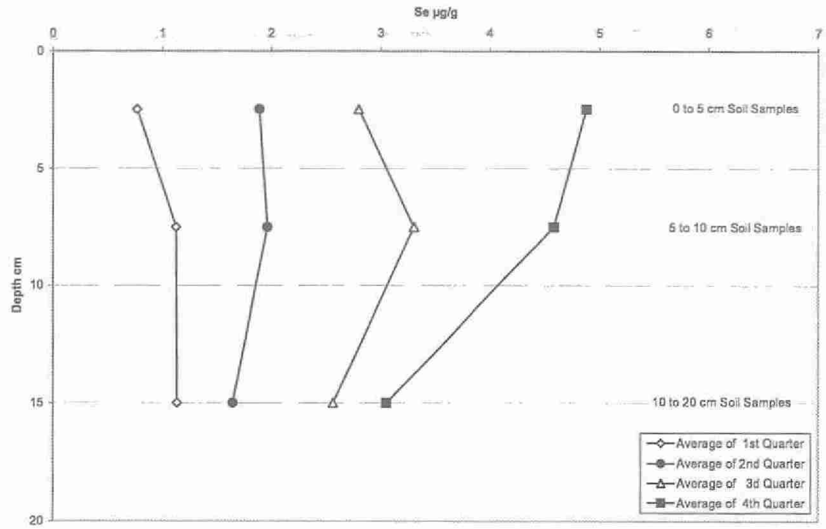


Figure 10.5.5.10: Falconbridge, Se depth profiles, all data.

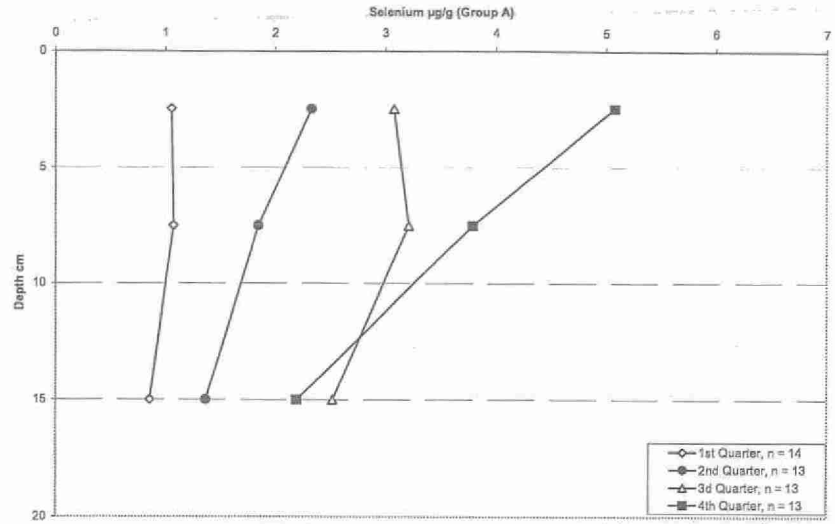


Figure 10.5.5.10a: Falconbridge, Se depth profiles, Group A data.

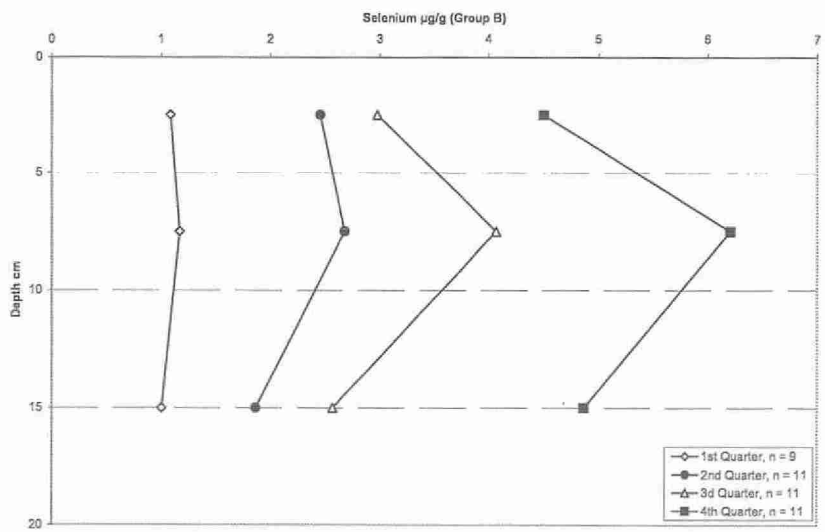


Figure 10.5.5.10b: Falconbridge, Se depth profiles, Group B data.

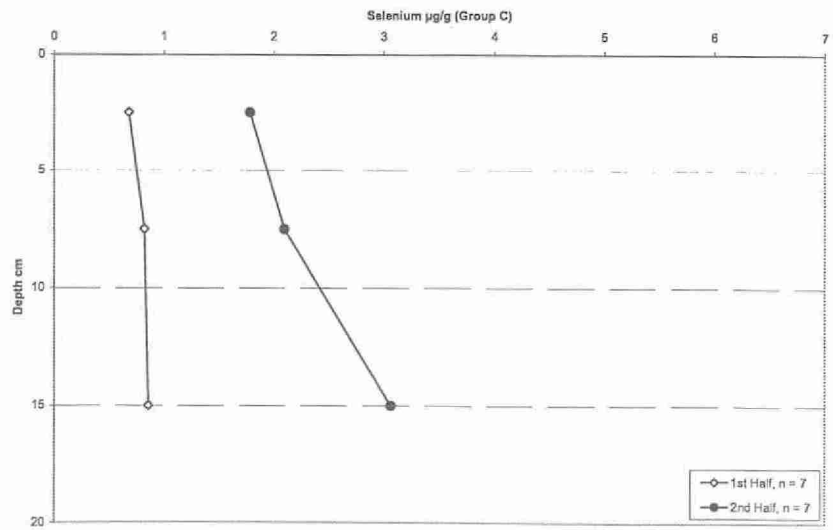


Figure 10.5.5.10c: Falconbridge, Se depth profiles, Group C data.

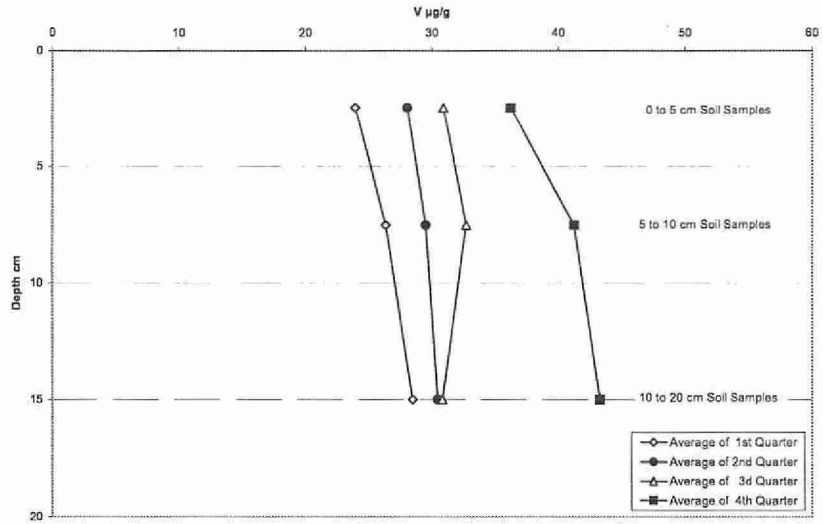


Figure 10.5.5.11: Falconbridge, V depth profiles, all data.

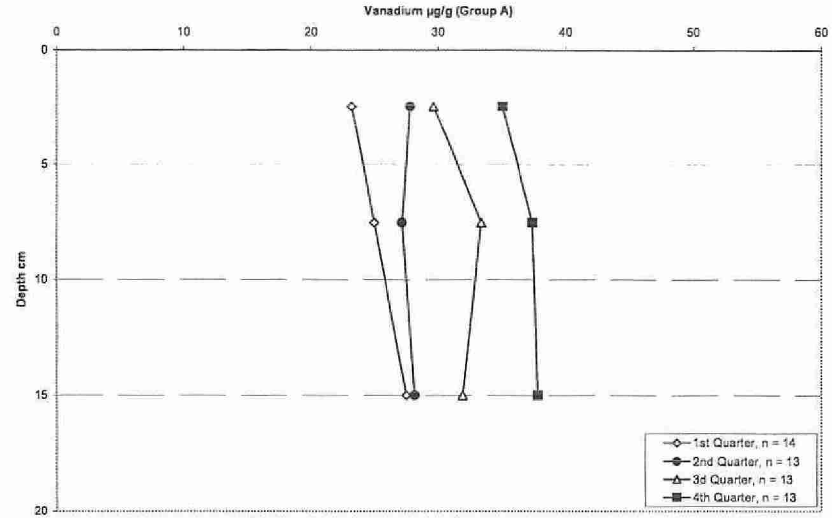


Figure 10.5.5.11a: Falconbridge, V depth profiles, Group A data.

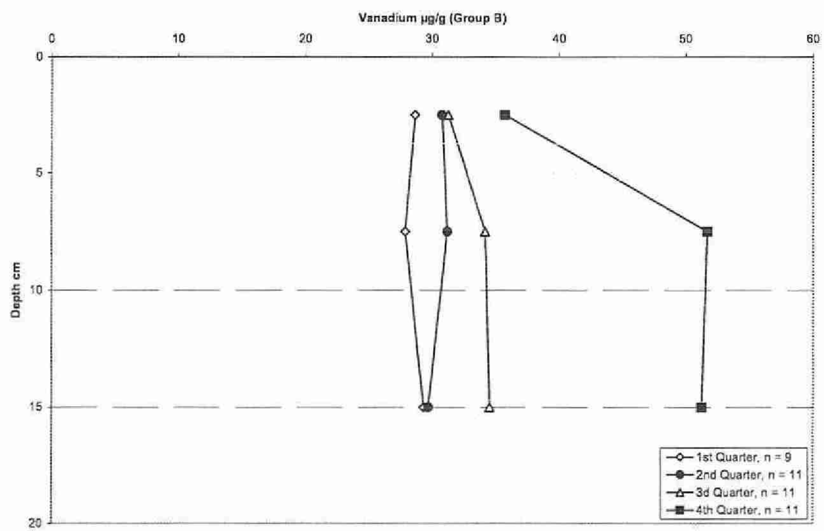


Figure 10.5.5.11b: Falconbridge, V depth profiles, Group B data.

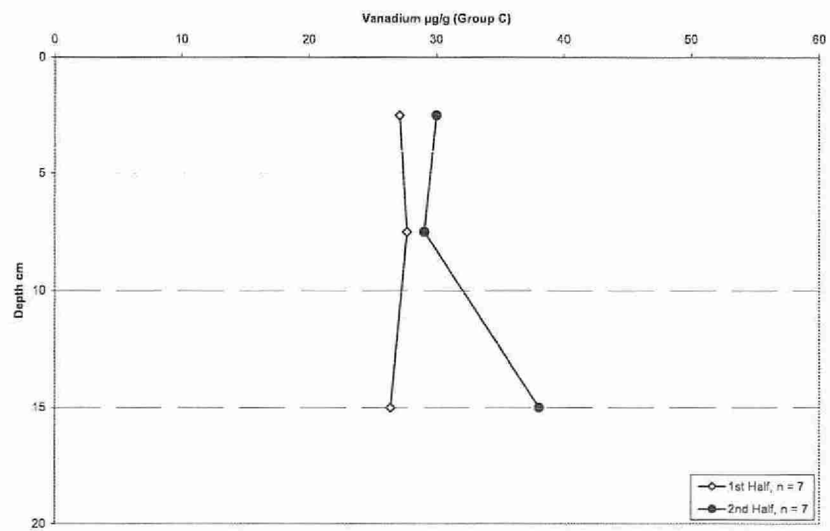


Figure 10.5.5.11c: Falconbridge, V depth profiles, Group C data.

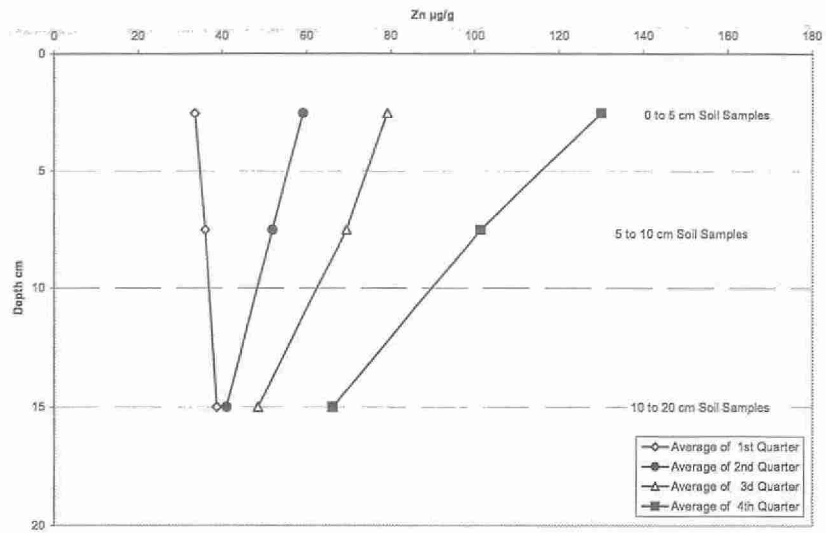


Figure 10.5.5.12: Falconbridge, Zn depth profiles, all data.

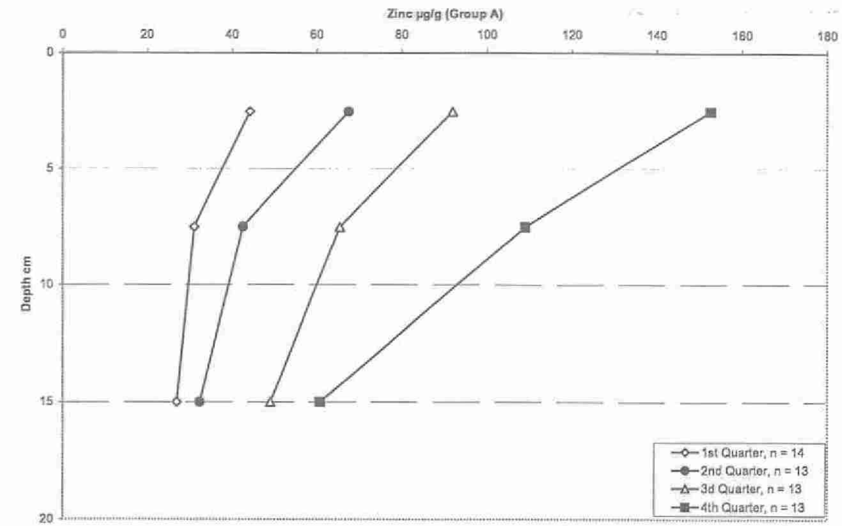


Figure 10.5.5.12a: Falconbridge, Zn depth profiles, Group A data.

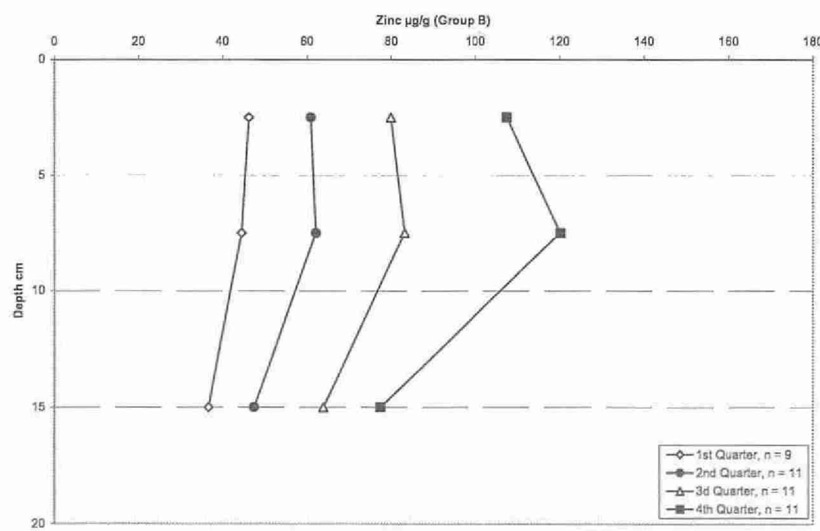


Figure 10.5.5.12b: Falconbridge, Zn depth profiles, Group B data.

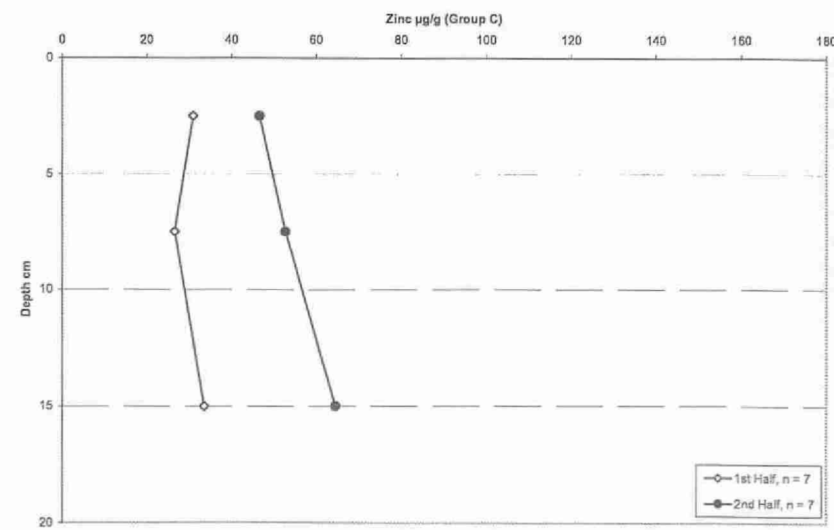


Figure 10.5.5.12c: Falconbridge, Zn depth profiles, Group C data.

10.5.6 Copper Cliff

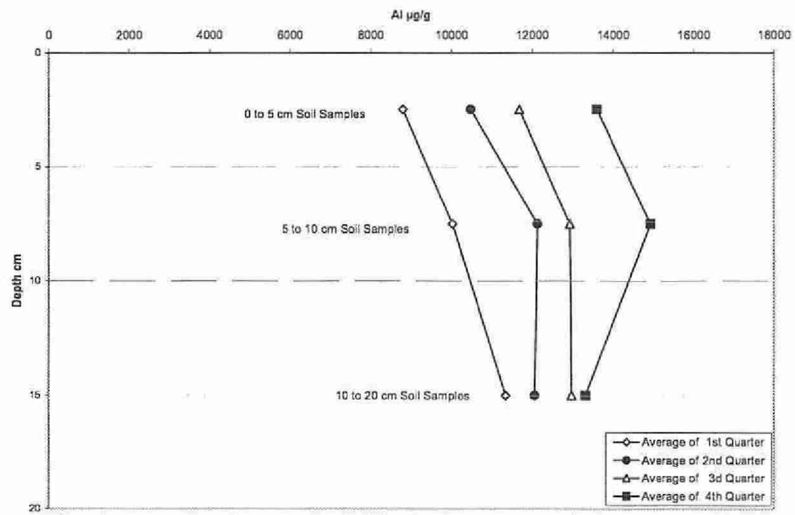


Figure 10.5.6.1: Copper Cliff, Al depth profiles, all data.

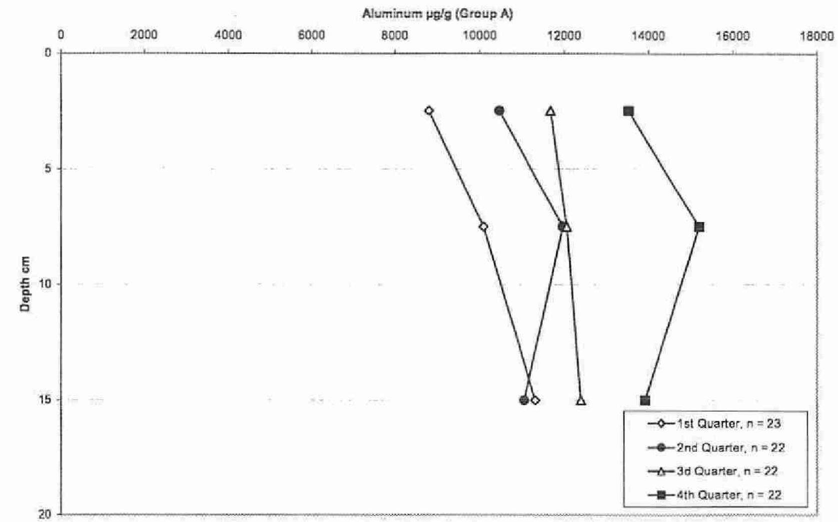


Fig. 10.5.6.1a: Copper Cliff, Al depth profiles, Group A data.

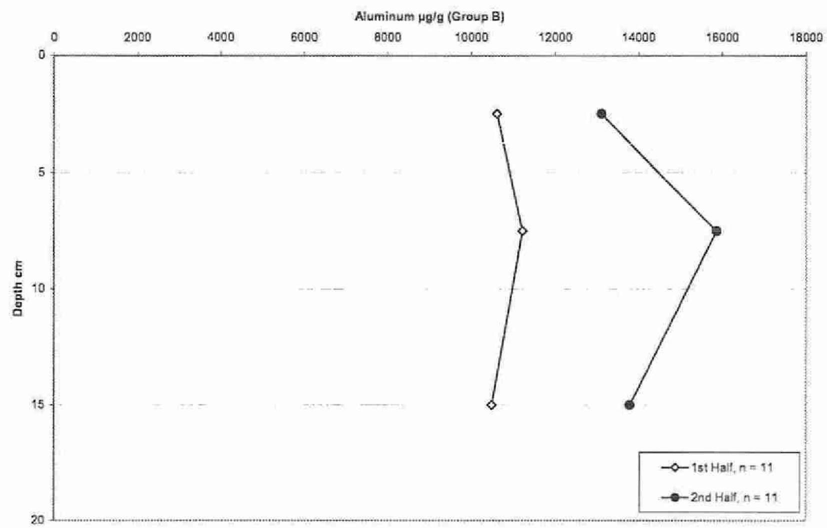


Fig. 10.5.6.1b: Copper Cliff, Al depth profiles, Group B data.

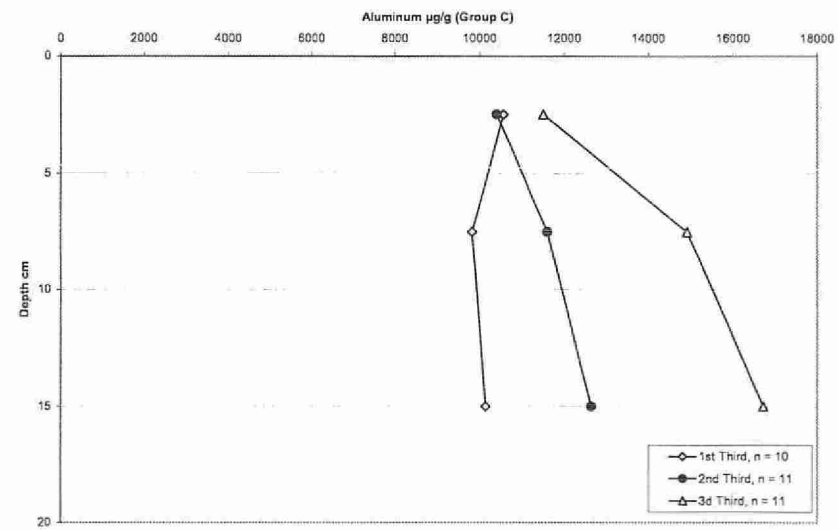


Fig. 10.5.6.1c: Copper Cliff, Al depth profiles, Group C data.

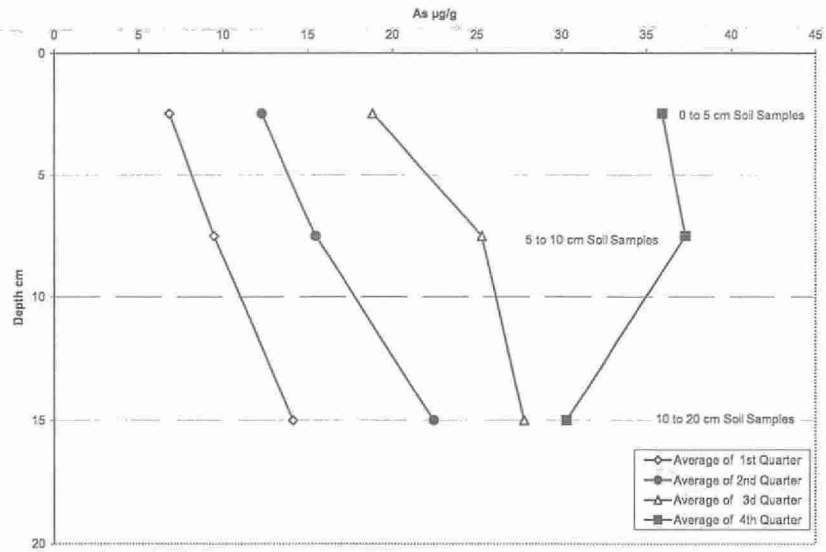


Figure 10.5.6.2: Copper Cliff, As depth profiles, all data.

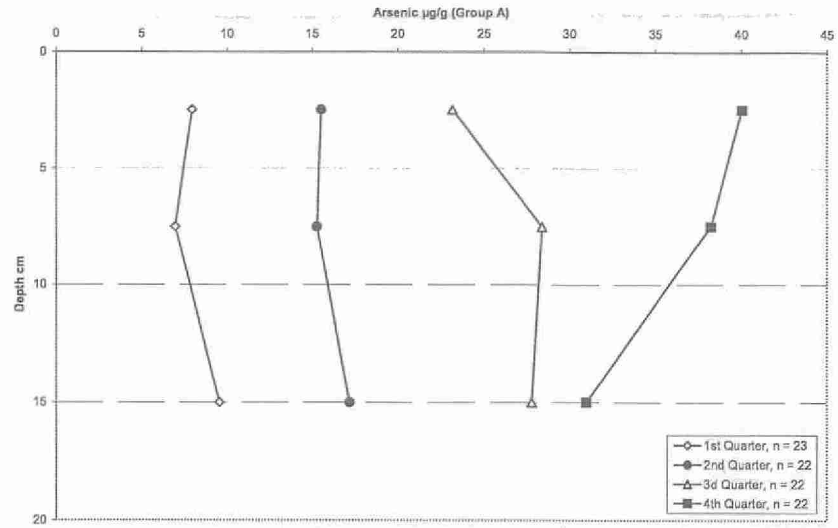


Figure 10.5.6.2a: Copper Cliff, As depth profiles, Group A data.

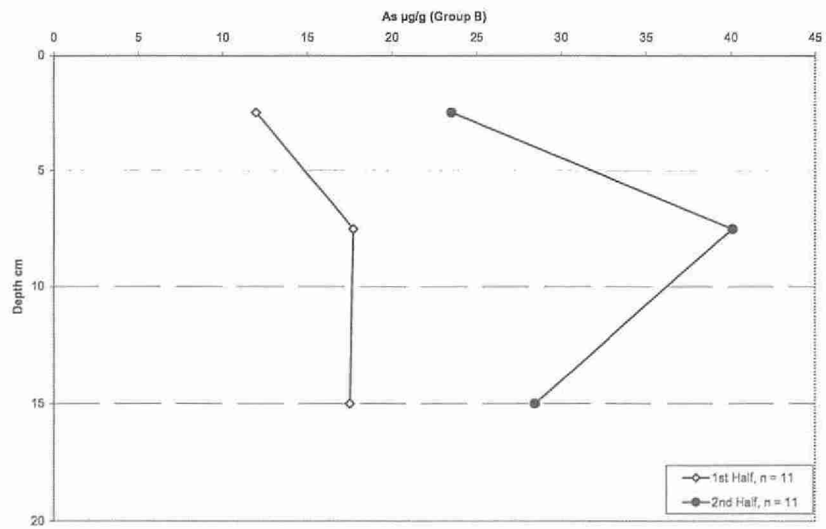


Figure 10.5.6.2b: Copper Cliff, As depth profiles, Group B data.

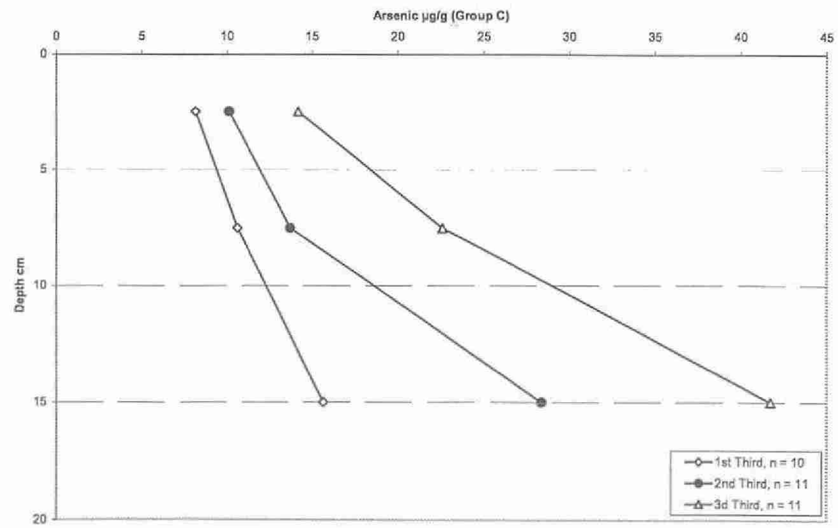


Figure 10.5.6.2c: Copper Cliff, As depth profiles, Group C data.

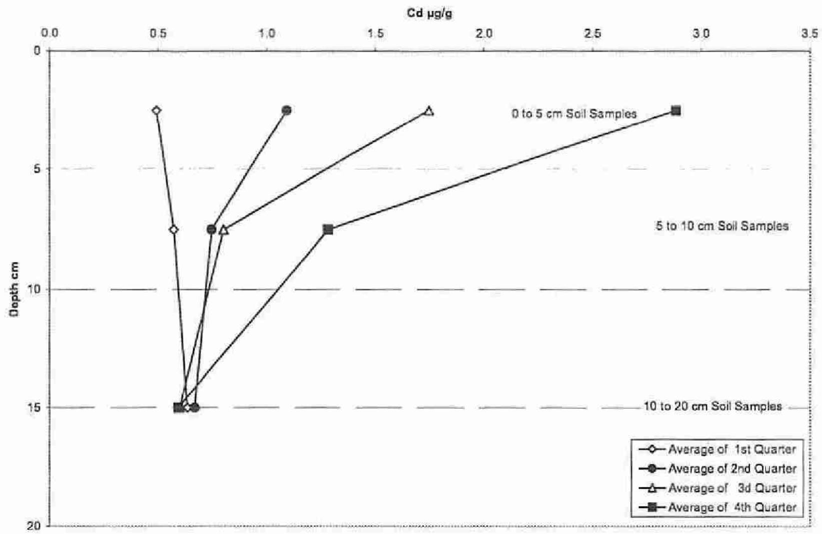


Figure 10.5.6.3: Copper Cliff, Cd depth profiles, all data.

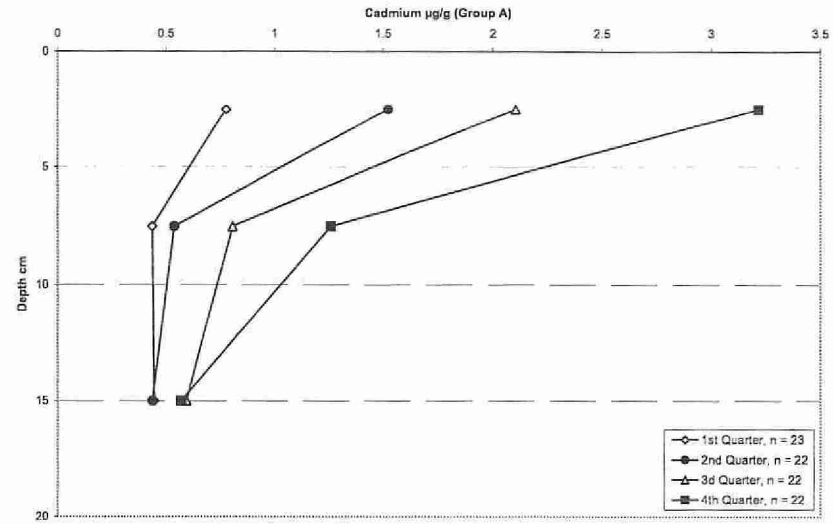


Figure 10.5.6.3a: Copper Cliff, Cd depth profiles, Group A data.

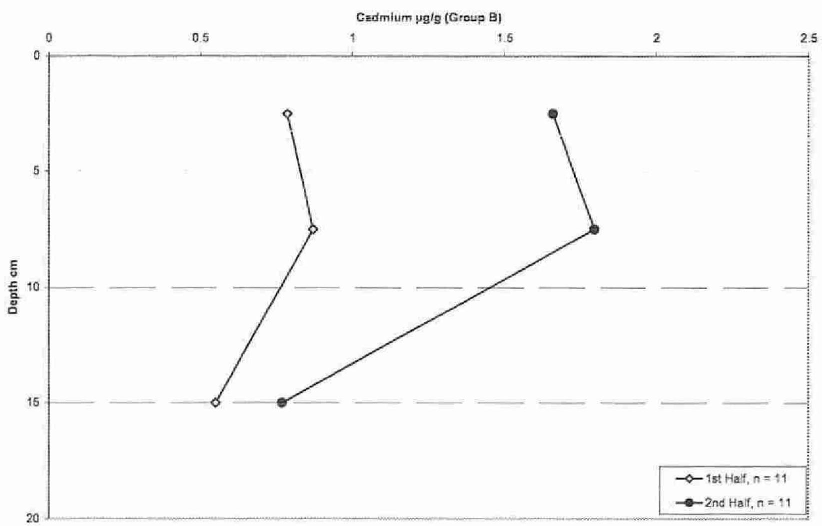


Figure 10.5.6.3b: Copper Cliff, Cd depth profiles, Group B data.

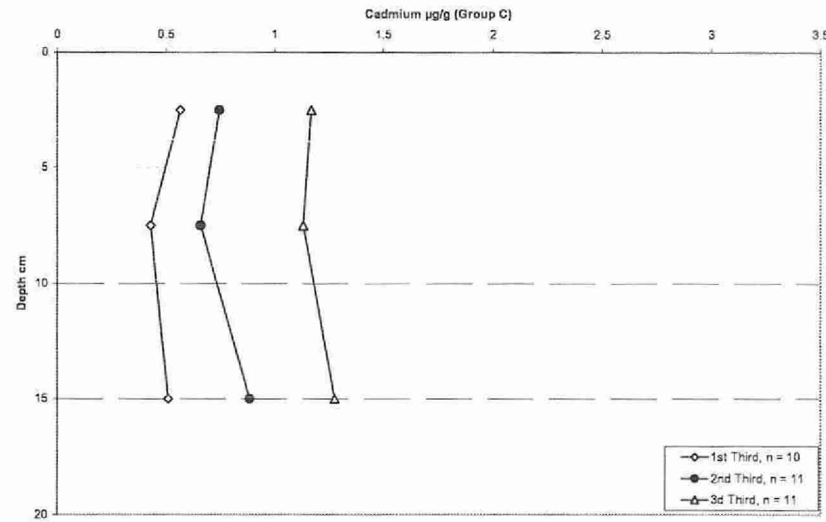


Figure 10.5.6.3c: Copper Cliff, Cd depth profiles, Group C data.

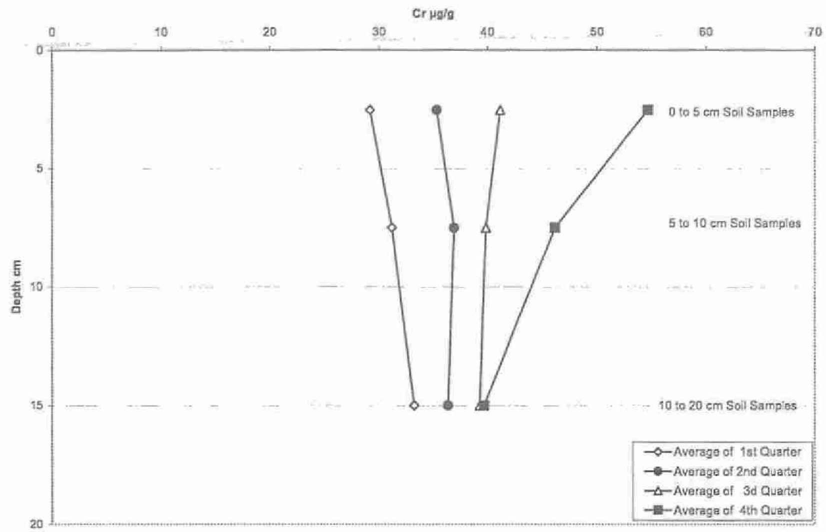


Figure 10.5.6.4: Copper Cliff, Cr depth profiles, all data.

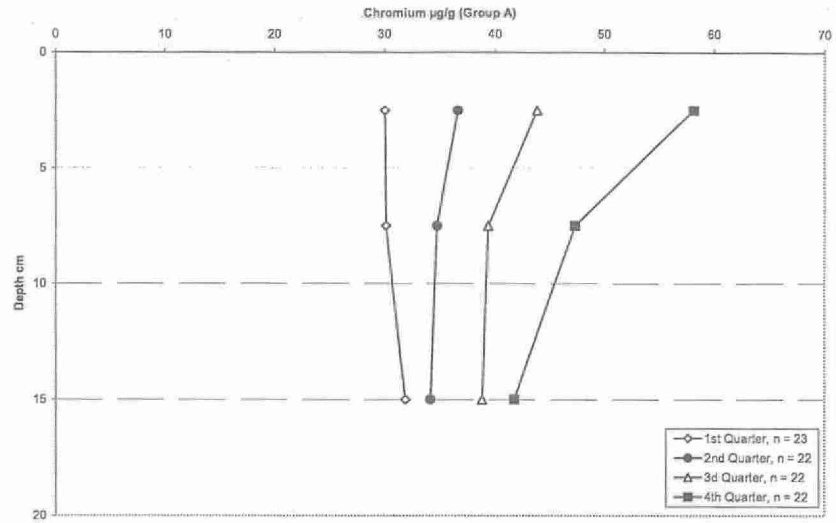


Figure 10.5.6.4a: Copper Cliff, Cr depth profiles, Group A data.

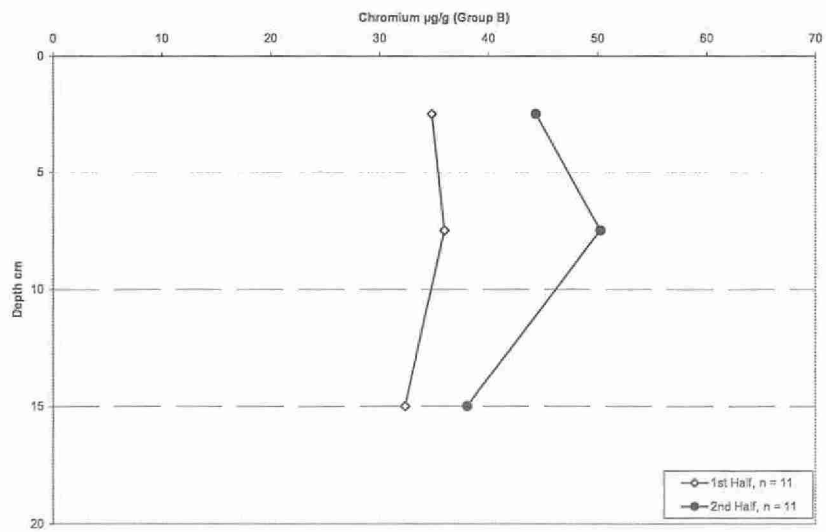


Figure 10.5.6.4b: Copper Cliff, Cr depth profiles, Group B data.

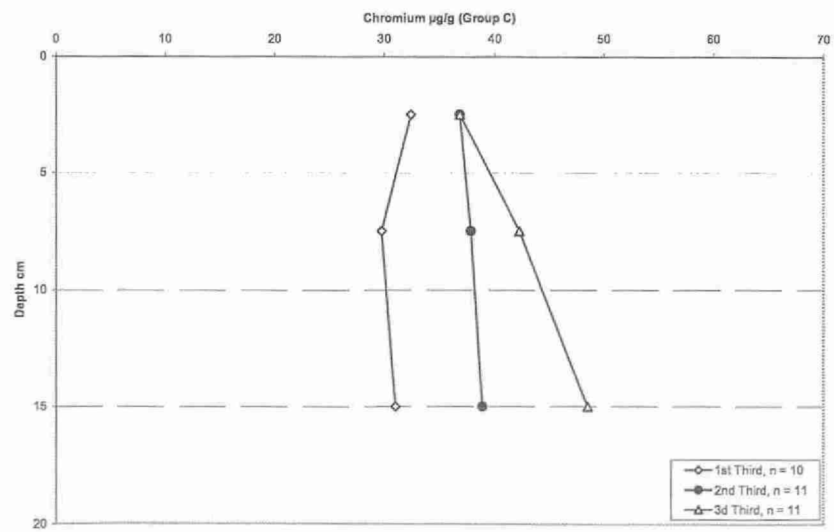


Figure 10.5.6.4c: Copper Cliff, Cr depth profiles, Group C data.

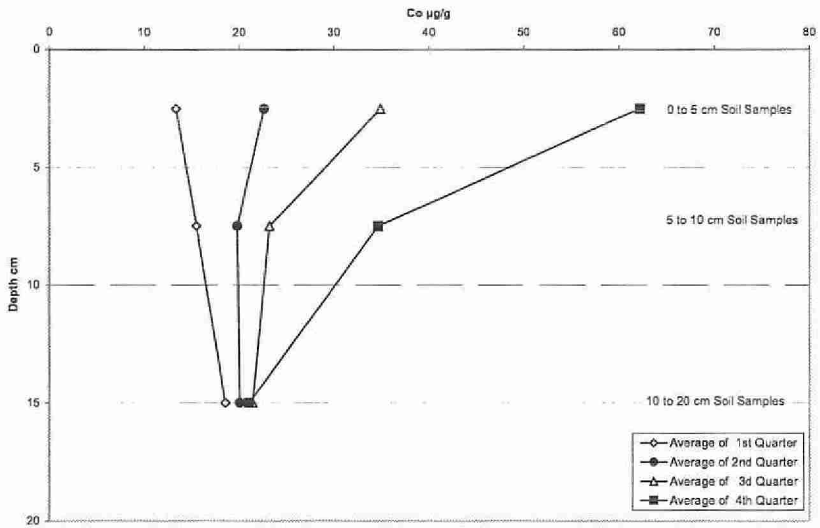


Figure 10.5.6.5: Copper Cliff, Co depth profiles, all data.

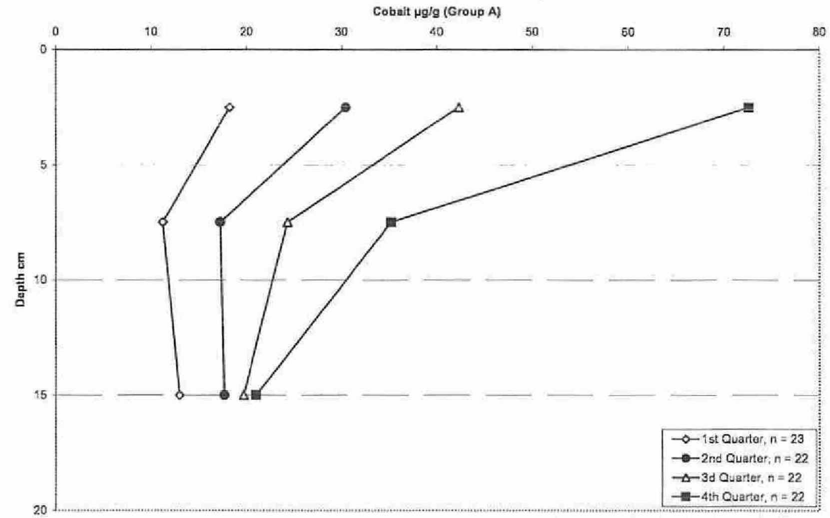


Figure 10.5.6.5a: Copper Cliff, Co depth profiles, Group A data.

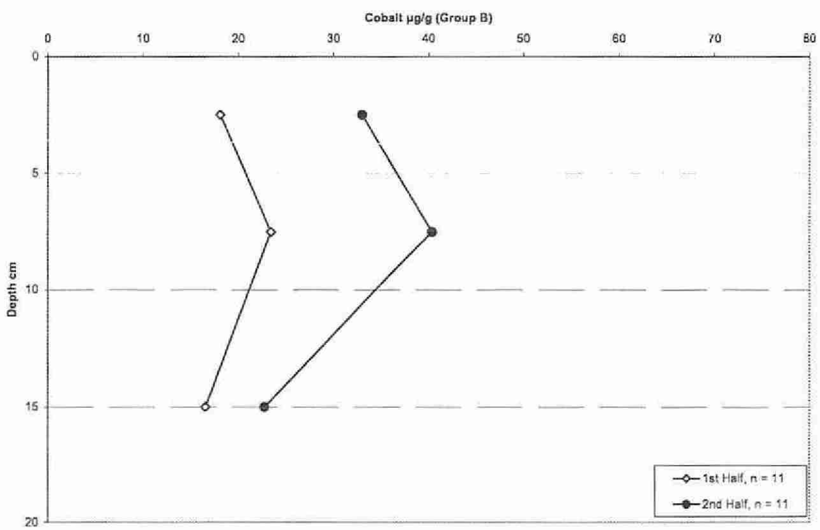


Figure 10.5.6.5b: Copper Cliff, Co depth profiles, Group B data.

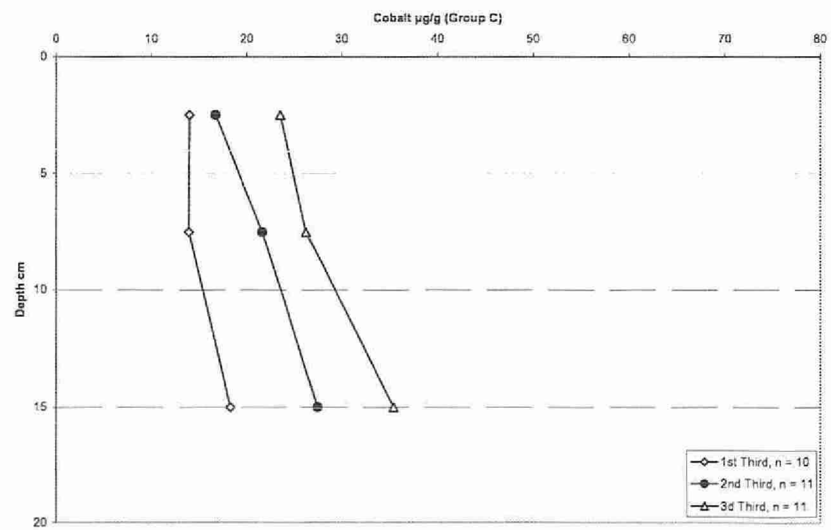


Figure 10.5.6.5c: Copper Cliff, Co depth profiles, Group C data.

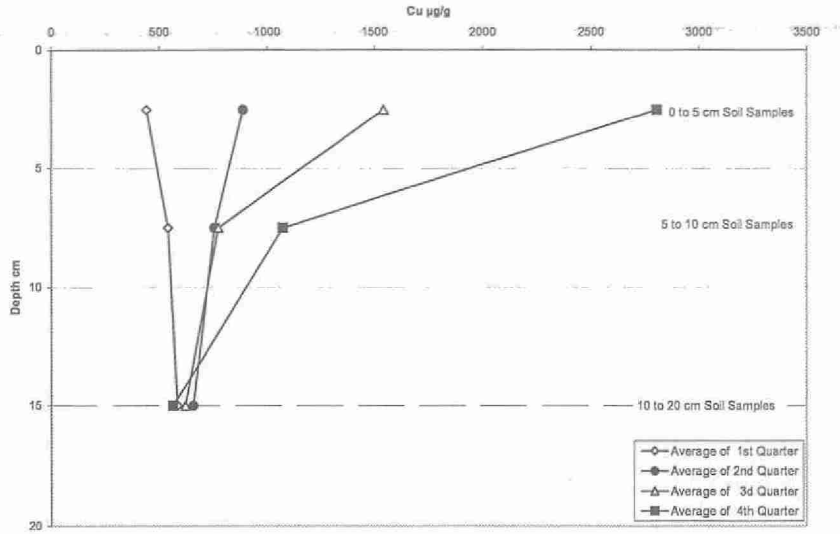


Figure 10.5.6.6: Copper Cliff, Cu depth profiles, all data.

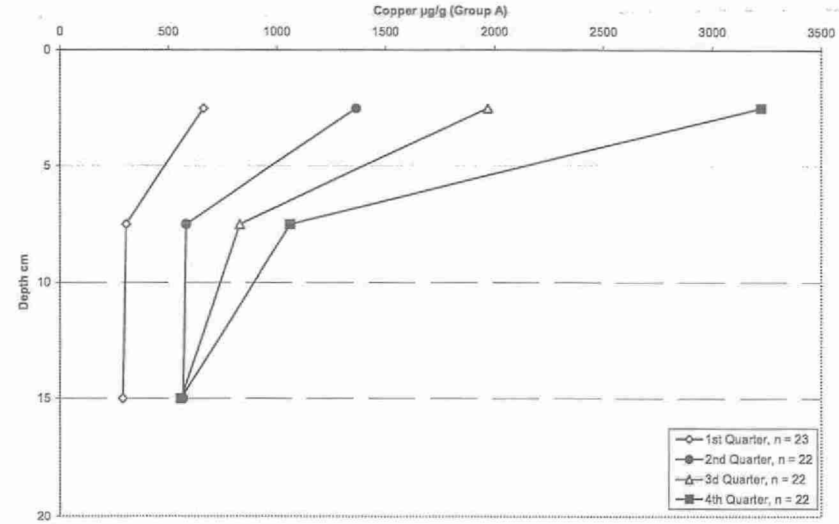


Figure 10.5.6.6a: Copper Cliff, Cu depth profiles, Group A data.

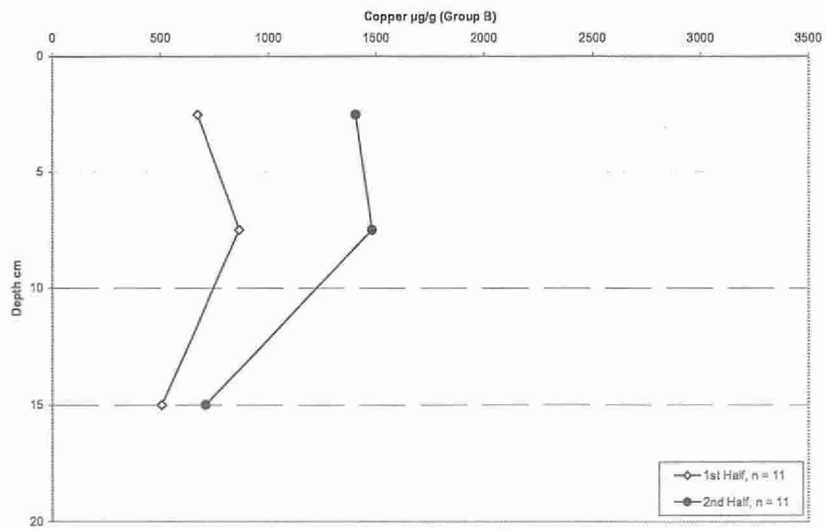


Figure 10.5.6.6b: Copper Cliff, Cu depth profiles, Group B data.

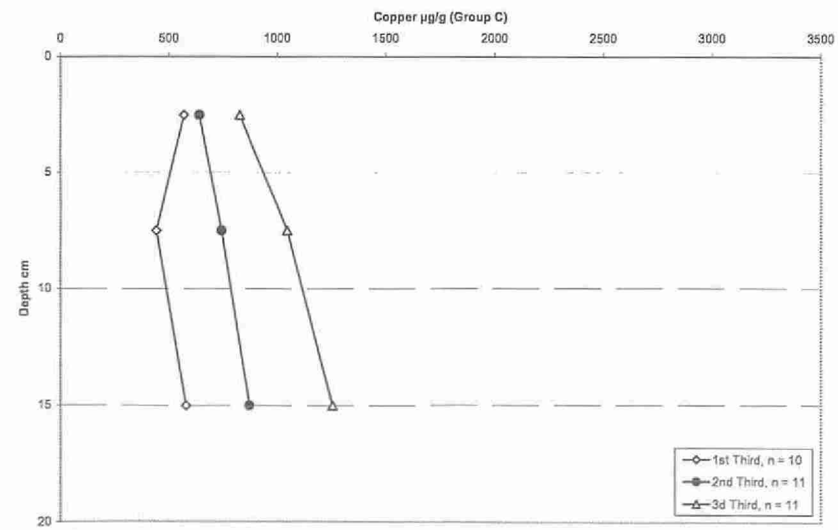


Figure 10.5.6.6c: Copper Cliff, Cu depth profiles, Group C data.

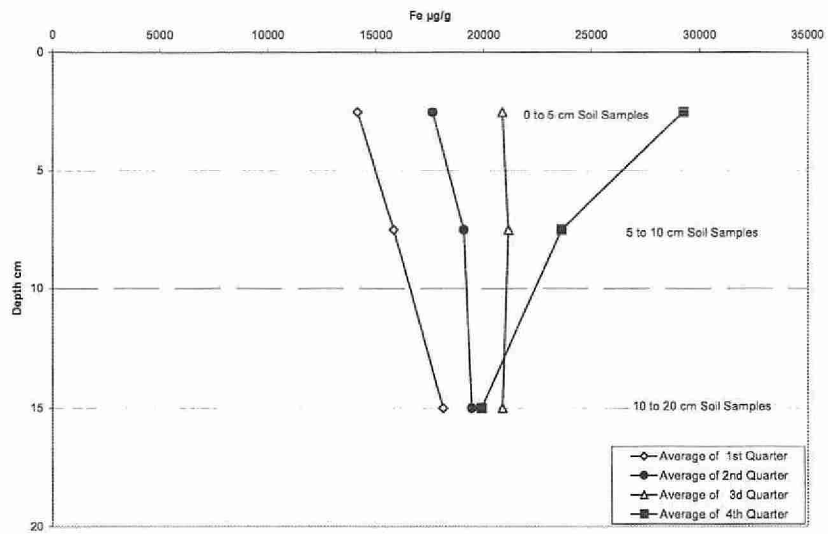


Figure 10.5.6.7: Copper Cliff, Fe depth profiles, all data.

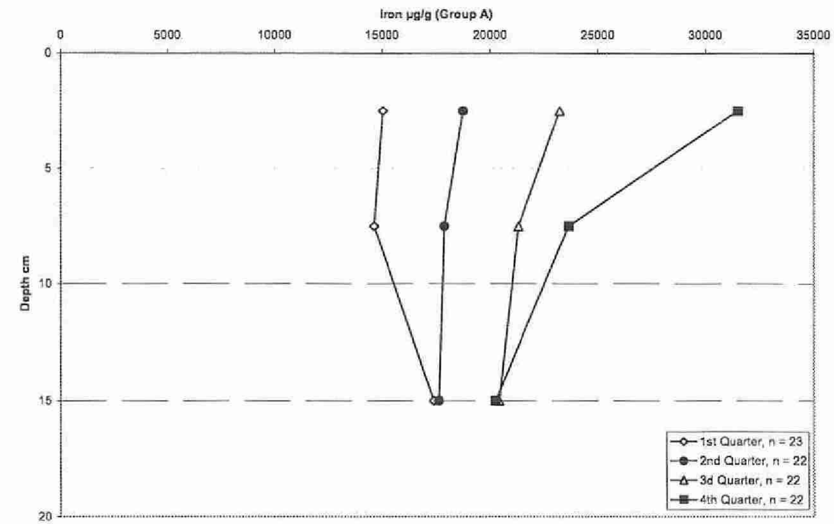


Figure 10.5.6.7a: Copper Cliff, Fe depth profiles, Group A data.

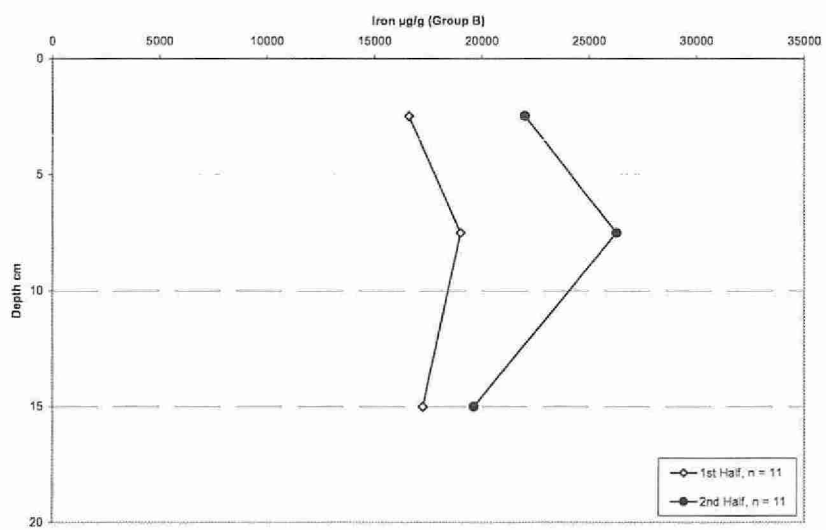


Figure 10.5.6.7b: Copper Cliff, Fe depth profiles, Group B data.

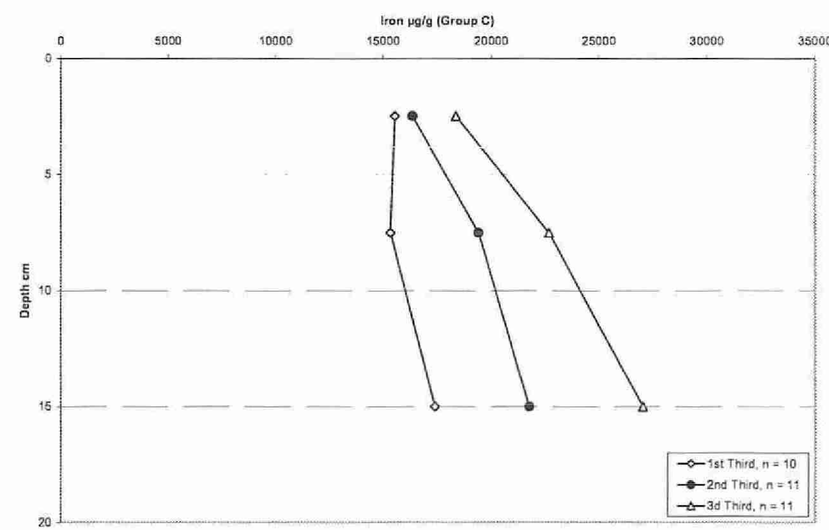


Figure 10.5.6.7c: Copper Cliff, Fe depth profiles, Group C data.

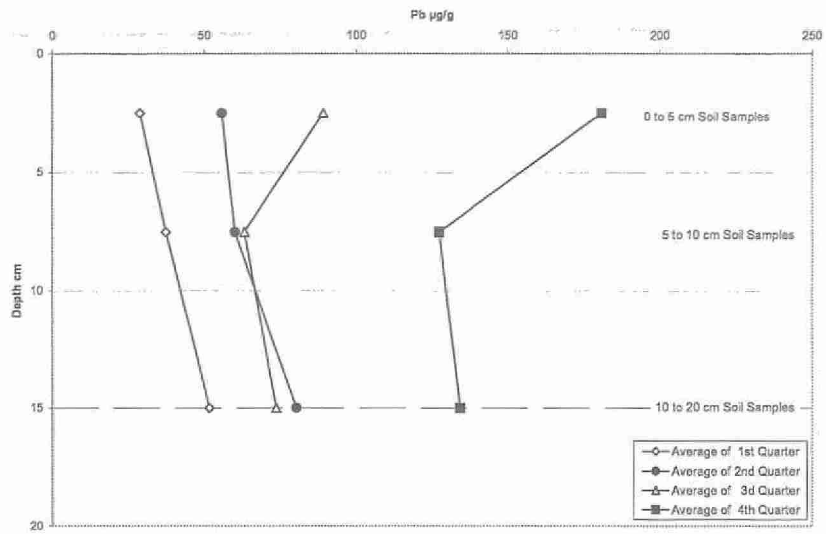


Figure 10.5.6.8: Copper Cliff, Pb depth profiles, all data.

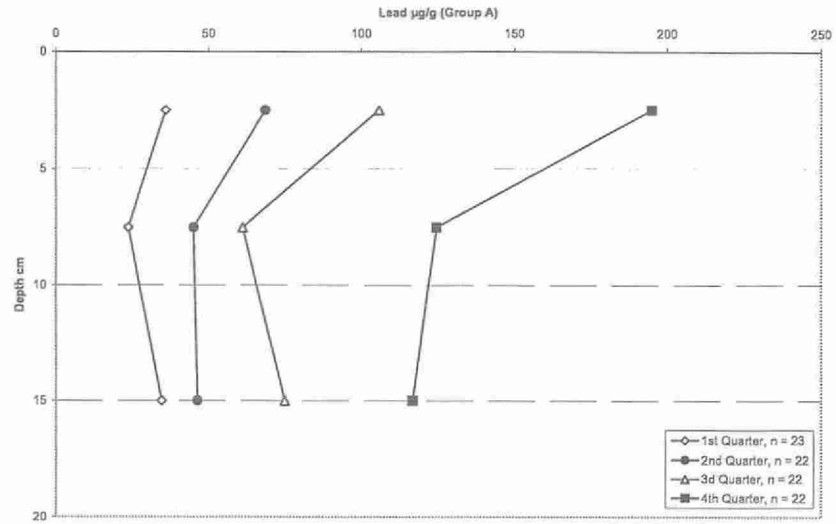


Figure 10.5.6.8a: Copper Cliff, Pb depth profiles, Group A data.

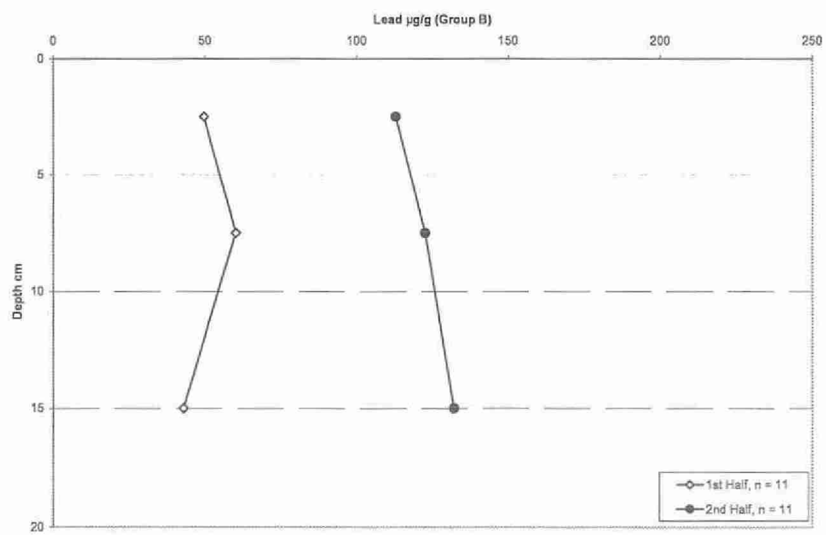


Figure 10.5.6.8b: Copper Cliff, Pb depth profiles, Group B data.

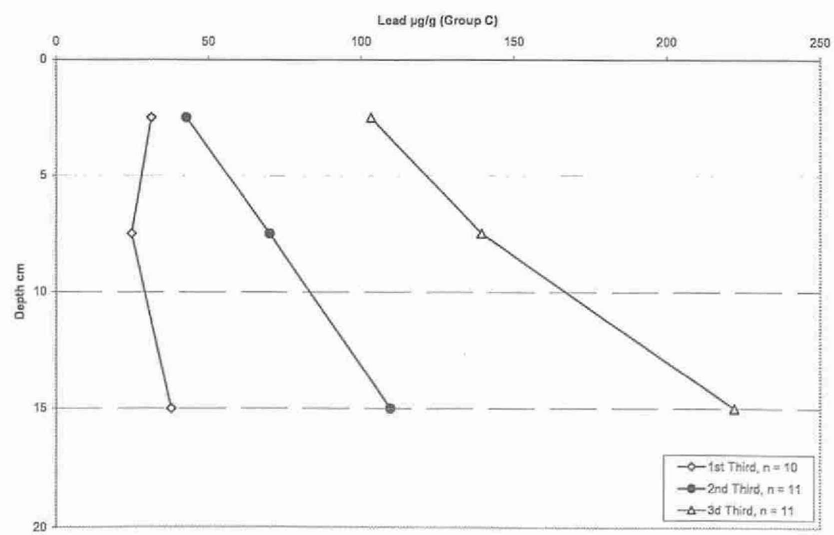


Figure 10.5.6.8c: Copper Cliff, Pb depth profiles, Group C data.

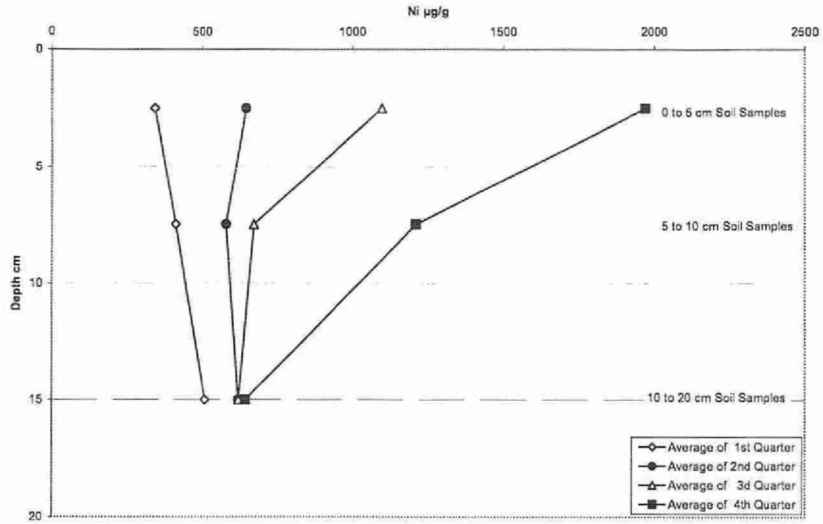


Figure 10.5.6.9: Copper Cliff, Ni depth profiles, all data.

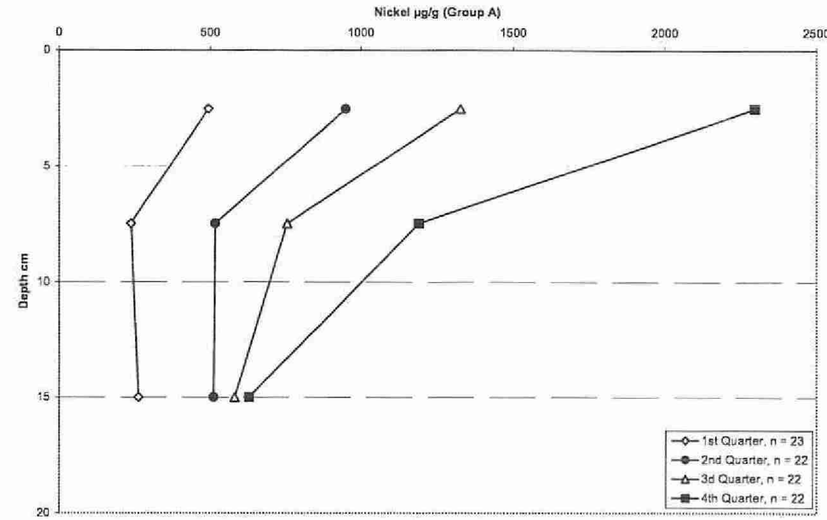


Figure 10.5.6.9a: Copper Cliff, Ni depth profiles, Group A data.

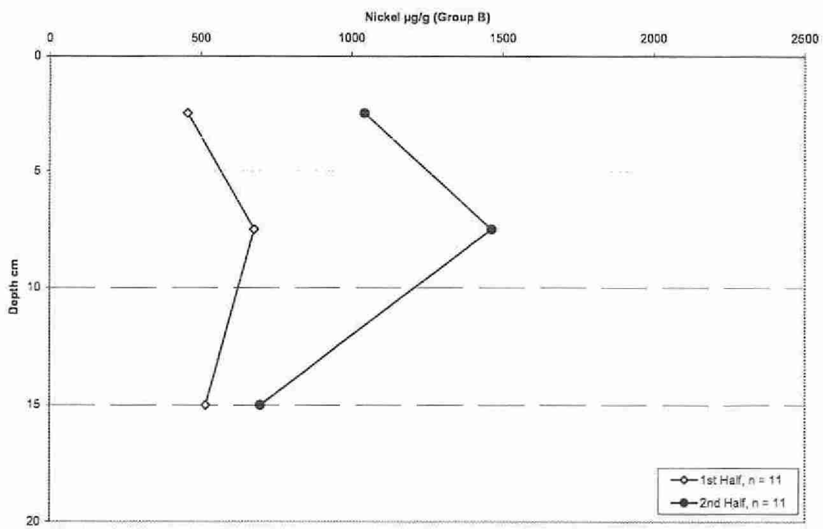


Figure 10.5.6.9b: Copper Cliff, Ni depth profiles, Group B data.

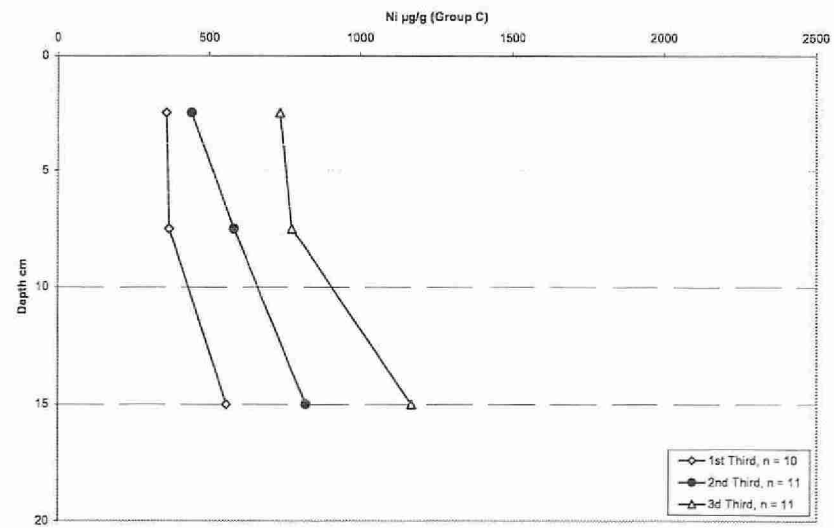


Figure 10.5.6.9c: Copper Cliff, Ni depth profiles, Group C data.

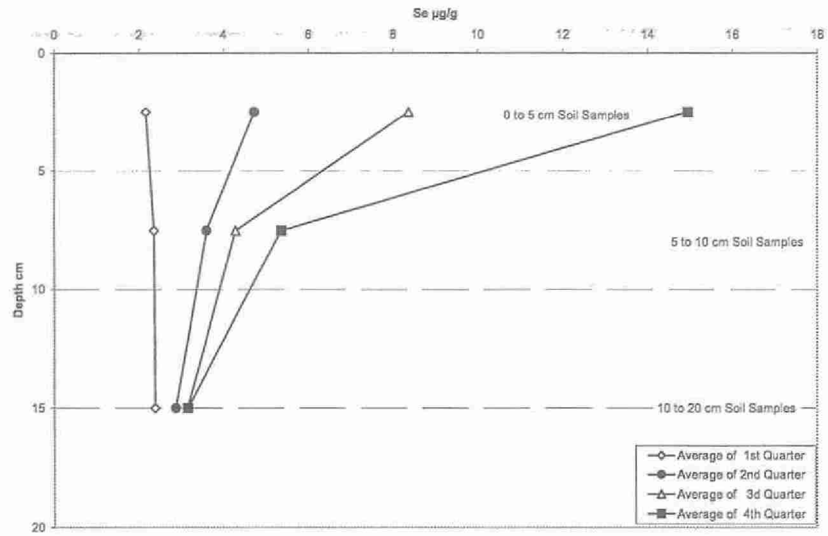


Figure 10.5.6.10: Copper Cliff, Se depth profiles, all data.

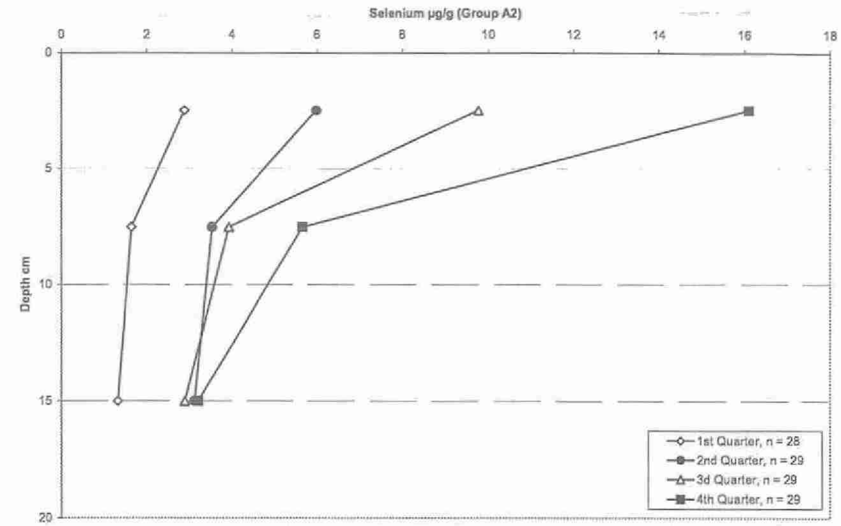


Figure 10.5.6.10a: Copper Cliff, Se depth profiles, Group A data.

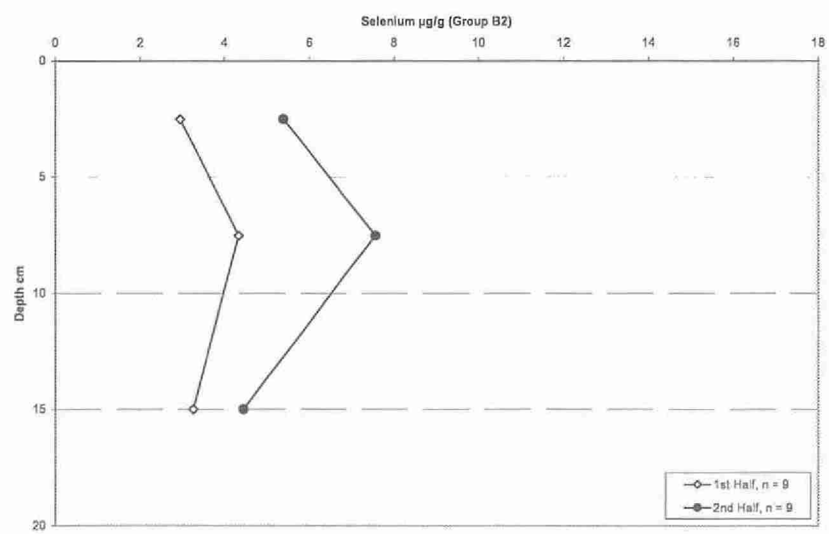


Figure 10.5.6.10b: Copper Cliff, Se depth profiles, Group B data.

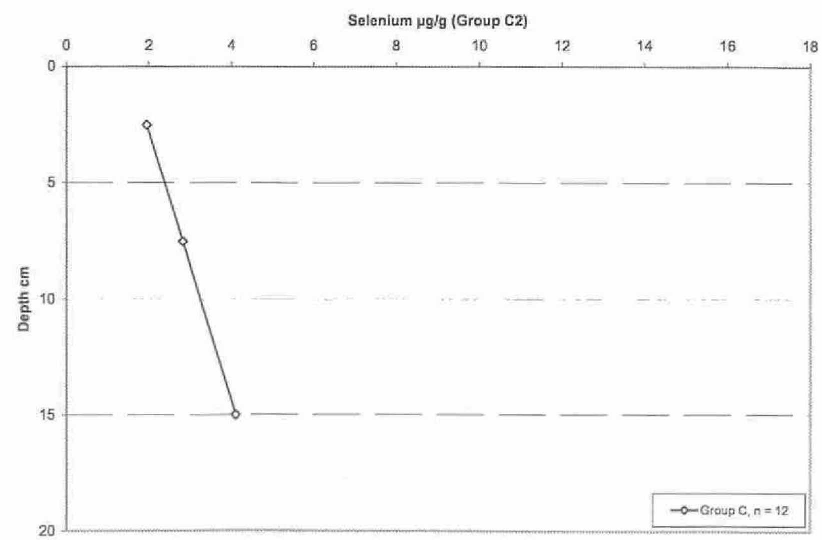


Figure 10.5.6.10c: Copper Cliff, Se depth profiles, Group C data.

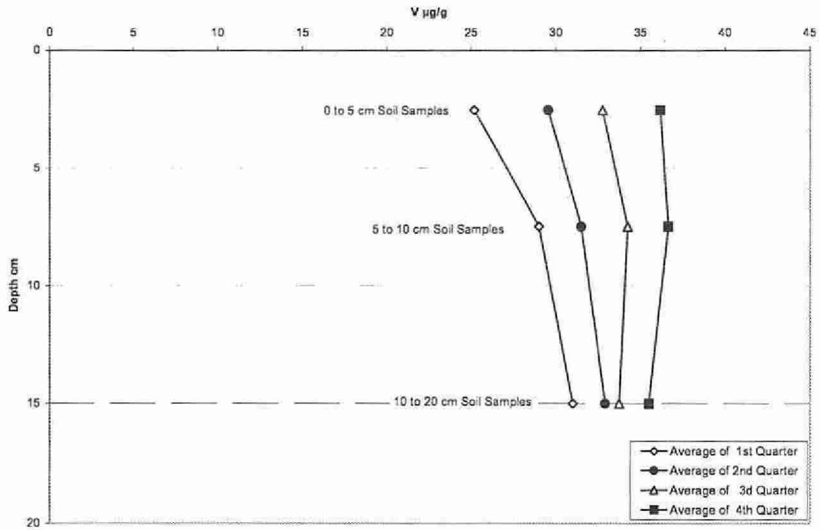


Figure 10.5.6.11: Copper Cliff, V depth profiles, all data.

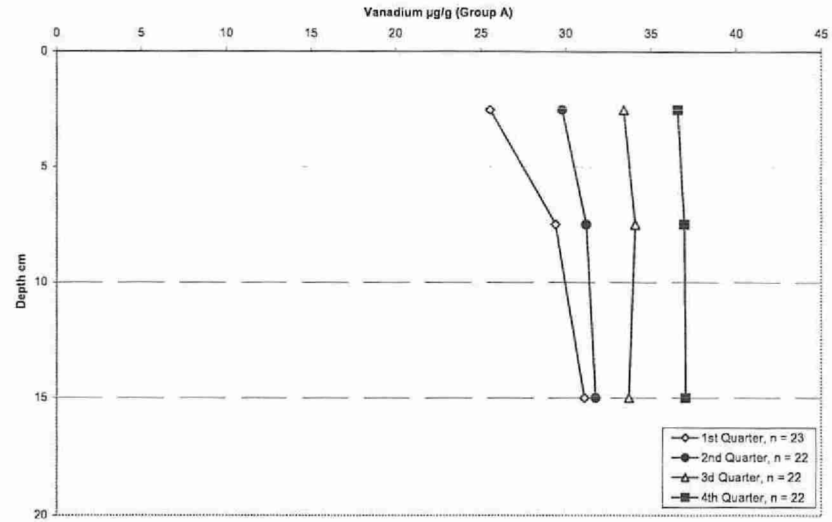


Figure 10.5.6.11a: Copper Cliff, V depth profiles, Group A data.

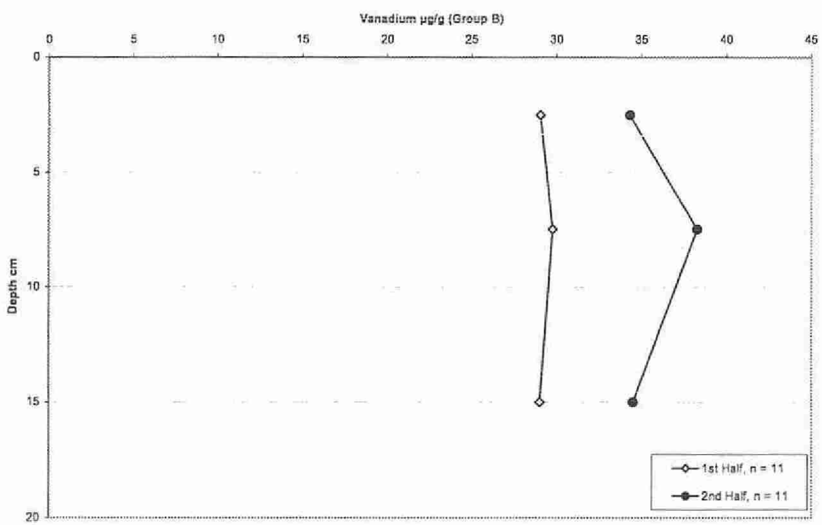


Fig. 10.5.6.11b: Copper Cliff, V depth profiles, Group B data.

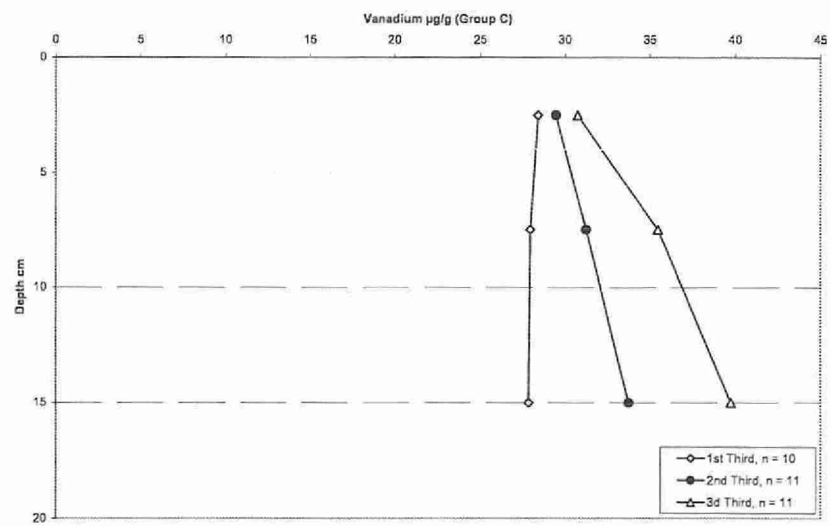


Figure 10.5.6.11c: Copper Cliff, V depth profiles, Group C data.

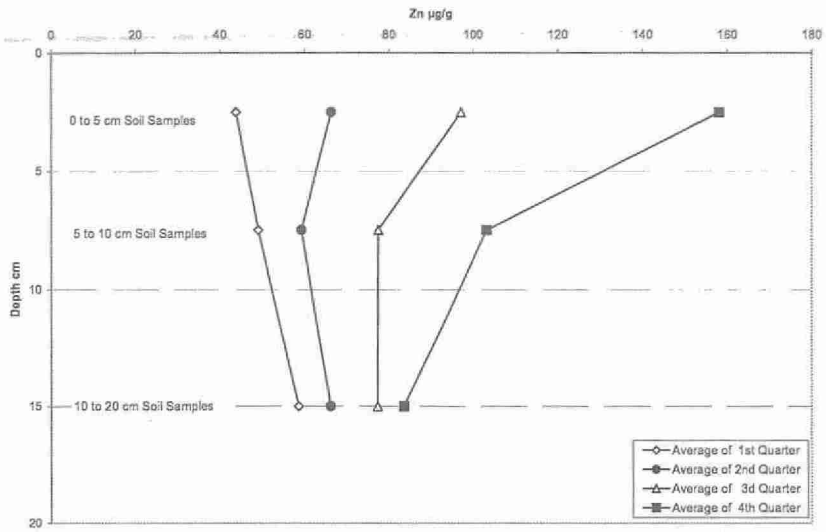


Figure 10.5.6.12: Copper Cliff, Zn depth profiles, all data.

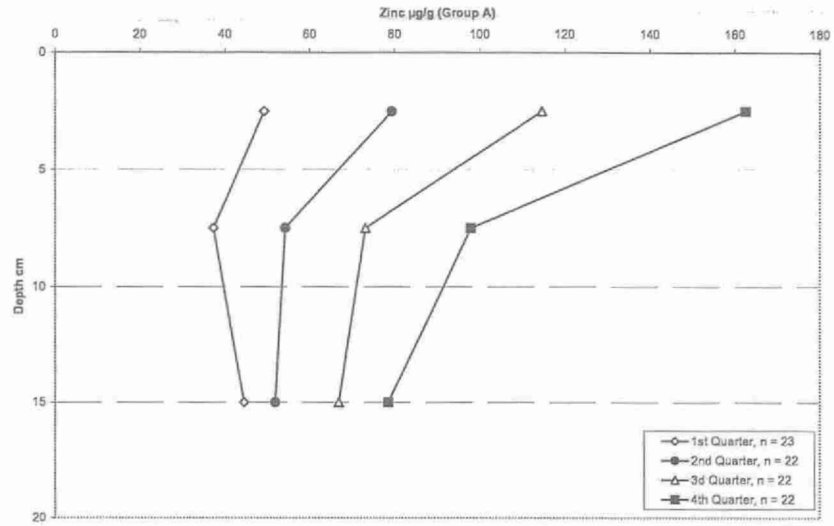


Figure 10.5.6.12a: Copper Cliff, Zn depth profiles, Group A data.

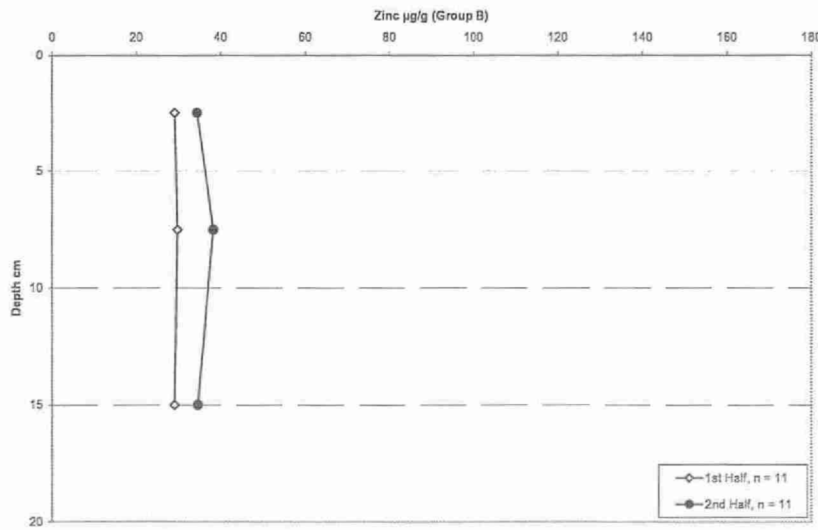


Figure 10.5.6.12b: Copper Cliff, Zn depth profiles, Group B data.

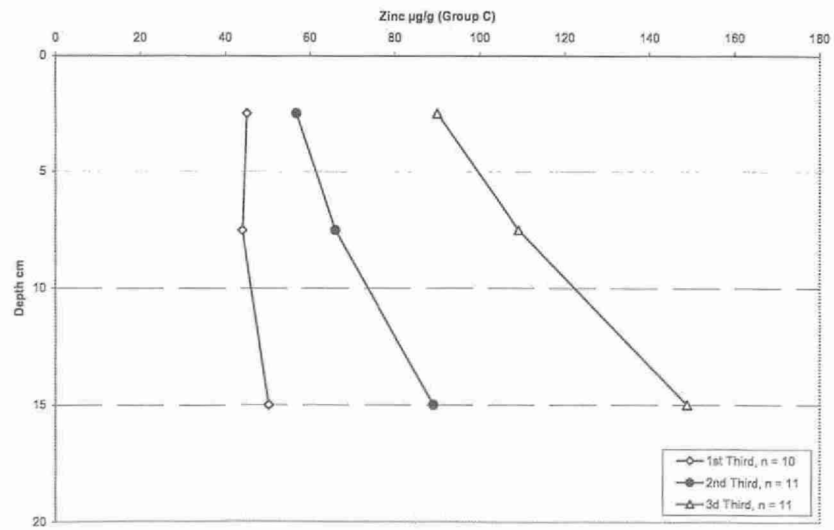


Figure 10.5.6.12c: Copper Cliff, Zn depth profiles, Group C data.

10.5.7 Undisturbed Natural Soil

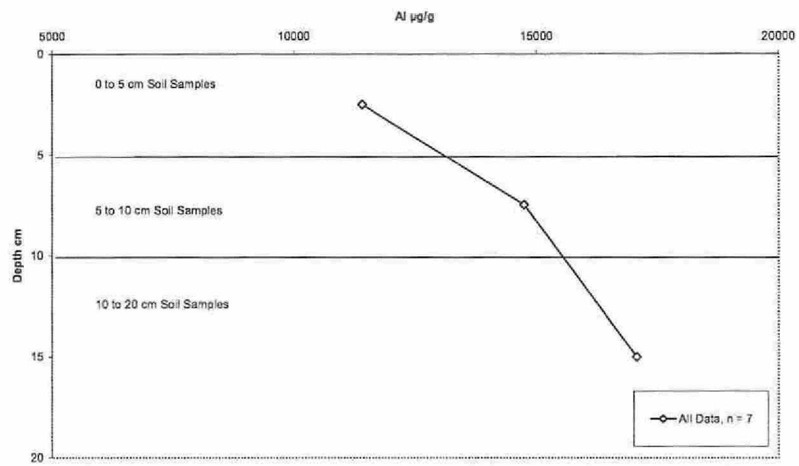


Figure 10.5.7.1: Undisturbed Natural Soil, Al depth profile, all data.

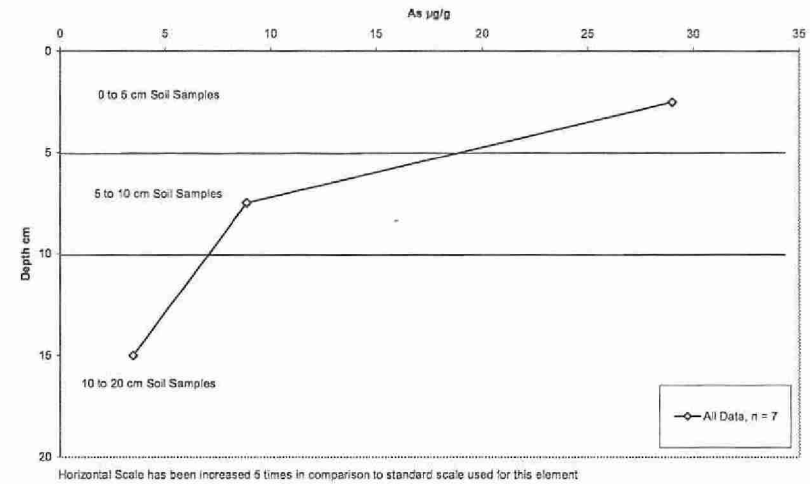


Figure 10.5.7.2: Undisturbed Natural Soil, As depth profile, all data.

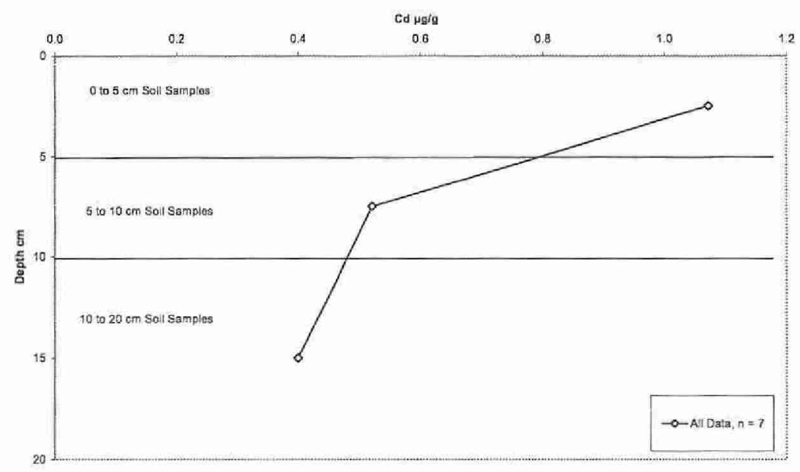


Figure 10.5.7.3: Undisturbed Natural Soil, Cd depth profile, all data.

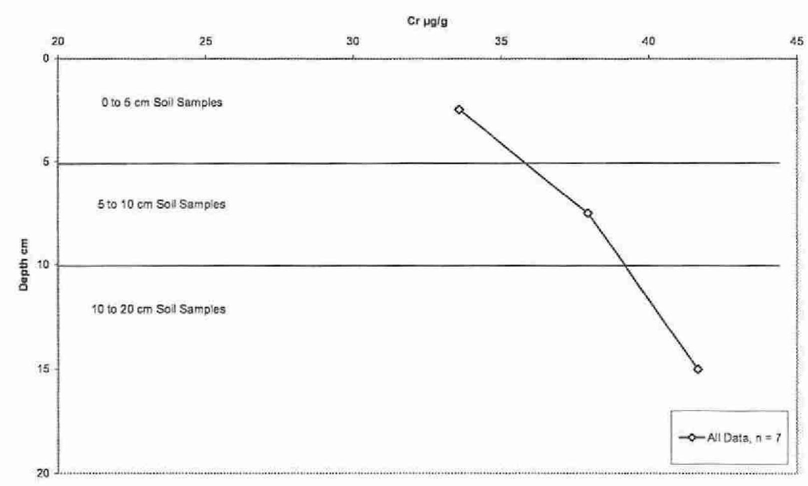


Figure 10.5.7.4: Undisturbed Natural Soil, Cr depth profile, all data.

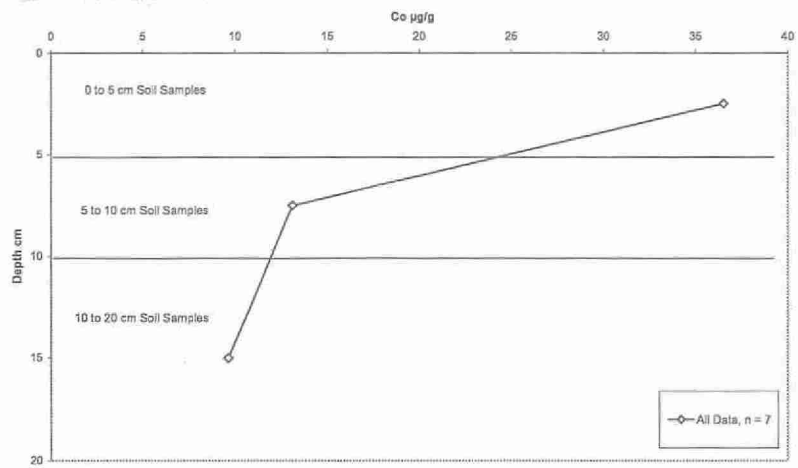


Figure 10.5.7.5: Undisturbed Natural Soil, Co depth profile, all data.

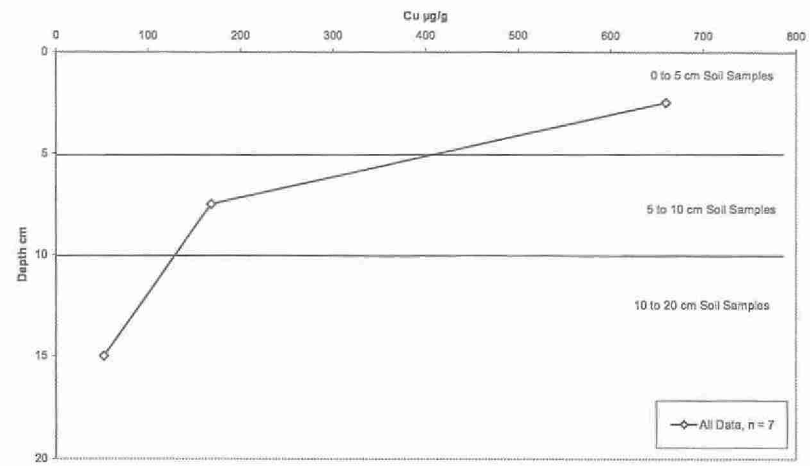


Figure 10.5.7.6: Undisturbed Natural Soil, Cu depth profile, all data.

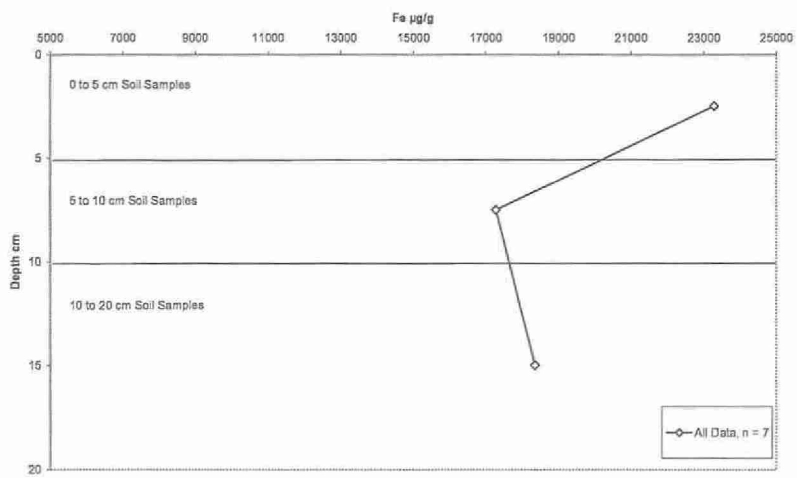


Figure 10.5.7.7: Undisturbed Natural Soil, Fe depth profile, all data.

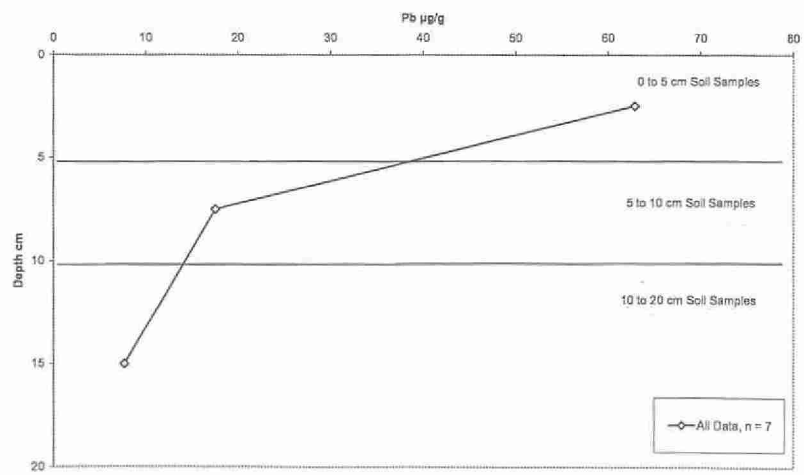


Figure 10.5.7.8: Undisturbed Natural Soil, Pb depth profile, all data.

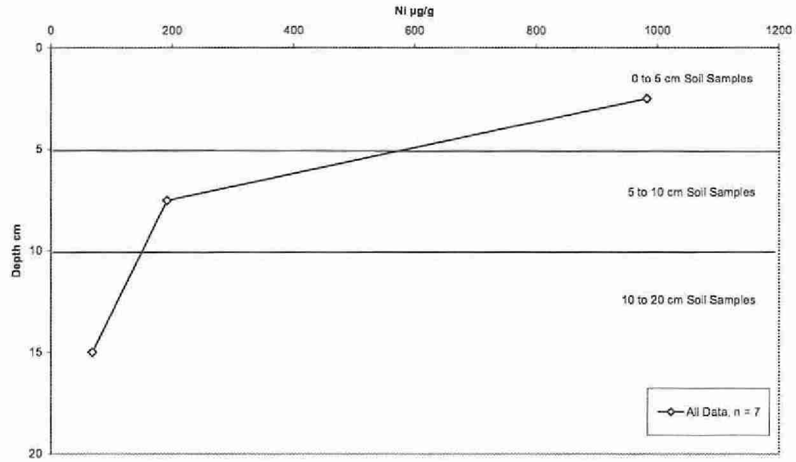


Figure 10.5.7.9: Undisturbed Natural Soil, Ni depth profile, all data.

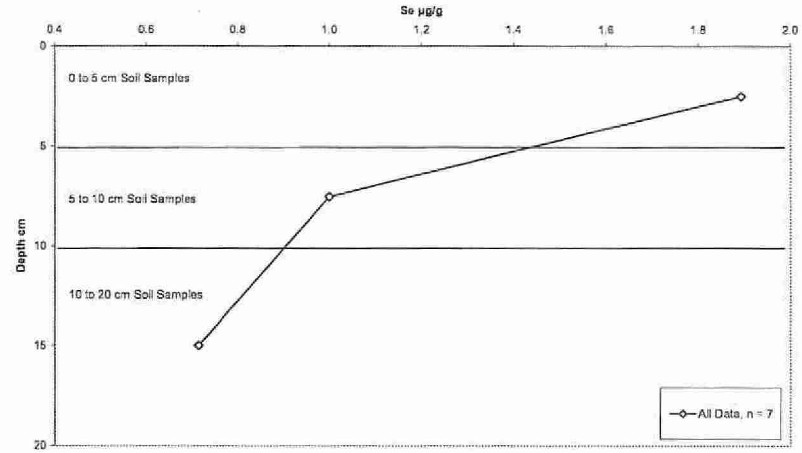


Figure 10.5.7.10: Undisturbed Natural Soil, Se depth profile, all data.

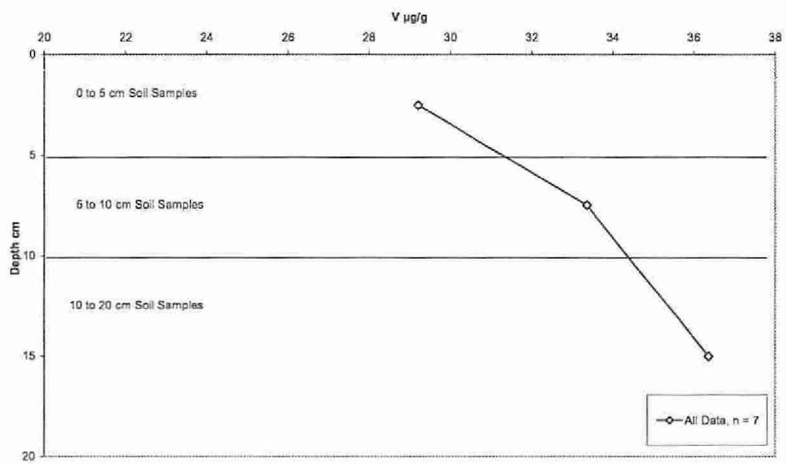


Figure 10.5.7.11: Undisturbed Natural Soil, V depth profile, all data.

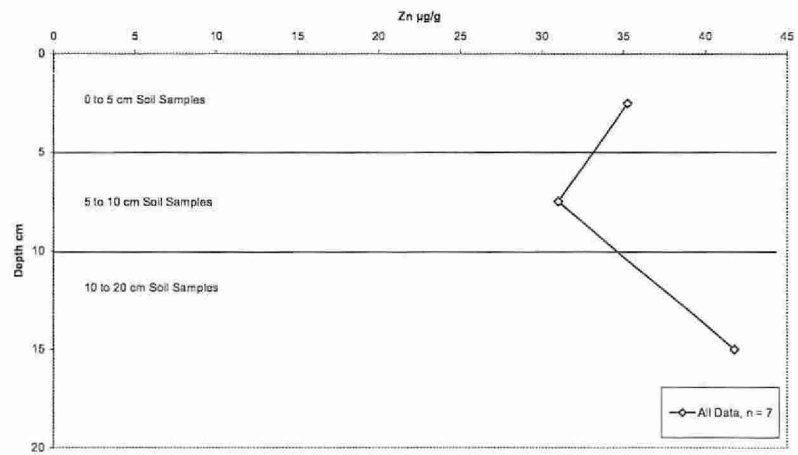


Figure 10.5.7.12: Undisturbed Natural Soil, Zn depth profile, all data.

Appendix A

City of Greater Sudbury 2001 Urban Soil Survey

Appendix A

Residential Yard and Vegetable Garden

Results

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1. METHODS

During the months of September and October of 2001, Ministry representatives collected soil from front and back yards of 51 properties in Falconbridge, 75 properties in Coniston, and 74 properties in Copper Cliff. Garden produce and soil was also sampled at a subset of the residential properties sampled in each community. Six gardens were sampled in Falconbridge, 15 gardens were sampled in Coniston, 9 gardens in Copper Cliff, and 3 gardens each in Gatchell and Lively. Soil samples were also collected from front or back yards from 239 properties throughout the City of Greater Sudbury. Duplicate samples at 0 to 5 cm, 5 to 10 cm and 10 to 20 cm depths where possible, were collected from each yard according to Ministry protocol (MOE 1993). Garden soil samples were collected in duplicate as a 0-15 cm core to represent the homogenous nature of the cultivated area. Produce was collected in duplicate where available but in most cases, there was only enough produce for a single sample.

Soil samples were delivered to the Ministry Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for processing (MOE 2000, Appendix F). Agat followed MOE Standard Operating Procedures which included air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample using a mortar and pestle to pass though a Number 45 mesh (0.355 mm) sieve. Finally, the ground material was stored in glass jars. All soil samples were sent to Lakefield Laboratory for the same parameter analyses as the vegetation, except for S, B, Cl, and K. MOE data management and quality control procedures for both sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

Vegetation samples were delivered to the Ministry Phytotoxicology laboratory for processing (MOE 2000b). The protocol for vegetation processing includes washing the produce with tap water as would be done in the home prior to consumption. All produce samples were treated in this fashion. The chopped washed vegetables were oven dried and ground in a Wiley™ Mill. The ground material was then stored in glass jars until submitted for analysis. All produce samples were forwarded to Laboratory Services Branch, MOE, for chemical analysis including: arsenic(As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). In addition, the vegetation analytical suite included sulphur (S), boron (B), chlorine (Cl), and potassium (K).

Interpretation of the produce results was based on comparisons with data from commercial market garden and commercial berry results from the City of Greater Sudbury (Appendix D). Soil data were compared with the Ministry Table F Soil Background Guidelines and Table A Soil Clean-up Guidelines (MOE 1997). All of the data presented within this report will be used to support the Human Health Risk Assessment that will be conducted for the City of Greater Sudbury.

2. RESULTS SUMMARY TABLES

The summary results and the full results in Section 3 are organized in the same manner. All of the results are organized by communities or groups of communities. The communities/groups are:

Coniston	
Copper Cliff	
Falconbridge	
Sudbury Core	(Flour Mill, Gatchell, Little Britain, Northern Heights)
Greater Sudbury Area consists of:	
Sudbury East	(Minnow Lake, Adamsdale, Moonlight Beach)
Sudbury New	(Barry Downe, New Sudbury, Nickeldale, San Francisco)
Sudbury South	(Robinson, Lockerby, Laurentian, Lo-Ellen)
Outer communities	(Azilda,Garson, Lively, Skead)

In each table the results are organized by community and then alphabetically by street name. The residential yard soil data for each community is given first. This is followed by the residential garden vegetables and garden soil result data. For all summary calculations the “<“ results were used as reported in Section 3.

Table A2.1: Summary of the number of residential properties sampled in each community and the number of residential properties with at least one sample exceeding the Table F and Table A MOE Soil Criteria (MOE 1997) from the City of Greater Sudbury 2001 survey.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Coniston	75 (15 gardens)	75	56	66	44	66	10	29	22	18	4
Copper Cliff	73 (9 gardens)	73	73	73	73	70	39	64	52	44	23
Falconbridge	50 (6 gardens)	50	50	49	49	46	45	49	49	23	8
Sudbury Core	78 (3 gardens)	78	70	60	59	20	7	15	9	13	3
Inner Sudbury Total:	**155**	**154**	**46**	**88**	**11**	**5**	**1**	**5**	**3**	**5**	**3**
New Sudbury	43	43	11	30	2	1	0	0	0	0	0
East Sudbury	29	29	11	19	3	1	1	4	2	2	1
South Sudbury	31	31	9	19	6	1	0	1	1	2	1
Lively	21 (3 gardens)	21	11	13	0	0	0	0	0	1	1
Azilda	15	14	2	2	0	0	0	0	0	0	0
Garson	16	16	2	6	0	0	0	0	0	0	0
Skead	6	4	0	1	0	0	0	0	0	0	0

2.1 Coniston Residential Yard Results Summary

Table A2.1.1: Number of Residential Properties in Coniston where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Coniston	75 (15 gardens)	75	56	66	44	66	10	29	22	18	4

Table A2.1.2: Summary Statistics for 0-5 cm Soil Samples from Coniston Residential Yards, Excluding Garden Properties

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5400	0.4	2.5	20	0.3	0.4	1400	18	3.0	14	8500	6	1500	88	0.8	25	0.5	10	18	17
10th	7060	0.4	2.5	35	0.3	0.4	2900	22	6.0	50	12000	13	2000	130	0.8	60	0.5	20	22	28
1st quartile	8150	0.4	2.5	42	0.3	0.4	3900	26	7.0	65	13000	18	2300	160	0.8	82	0.5	26	25	35
Median	9400	0.4	7.0	53	0.3	0.4	5300	29	11	150	15000	32	2700	180	0.8	200	0.5	33	27	53
3rd quartile	11000	0.4	13	67	0.3	0.9	7300	34	20	320	17000	68	3200	210	0.8	450	2.0	39	30	83
95th	14000	1.0	33	90	0.3	1.8	11000	44	45	807	24700	150	4070	250	1.5	1200	3.0	47	35	140
Maximum	20000	3.0	47	180	0.5	2.7	33000	75	74	1200	33000	400	6900	320	2.9	1900	5.0	86	44	250
Mean	9709	0.5	10	56	0.3	0.7	5999	31	16	246	15483	52	2833	183	0.8	336	1.2	33	27	64
Geometric mean	9457	0.5	7.5	53	0.3	0.6	5323	30	13	154	15052	36	2748	179	0.8	203	0.9	32	27	55
Sample std. dev.	2309	0.3	9.1	21	0.0	0.5	3400	8	13	253	3891	52	738	40	0.2	360	1.0	10	4	38
CV (std. dev./mean)	24%	64%	88%	37%	17%	72%	57%	27%	82%	103%	25%	99%	26%	22%	27%	107%	84%	29%	16%	60%
Lower CI for the mean	9440	0.5	9	54	0.3	0.6	5603	30	15	217	15030	46	2747	178	0.8	294	1.0	32	27	59
Upper CI for the mean	9977	0.5	11	59	0.3	0.7	6394	32	18	275	15936	58	2919	187	0.8	378	1.3	34	28	68
Kurtosis	1.5	28.4	2.9	5.6	27.4	2.5	19.1	7.2	2.8	2.6	2.4	9.5	4.3	0.4	37.3	3.1	3.1	3.8	0.7	3.0
Skewness	1.0	4.8	1.7	1.7	5.4	1.8	3.2	2.0	1.8	1.7	1.3	2.6	1.4	0.5	5.4	1.8	1.7	0.8	0.5	1.5

n = 287

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.1.3: Summary Statistics for 5-10 cm Soil Samples from Coniston Residential Yards, Excluding Garden Properties

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	21	0.3	0.4	1500	16	3	17	6500	5	1400	84	0.8	26	0.5	10	18	16
10th	7120	0.4	2.5	31	0.3	0.4	2500	21	5	42	11000	10	1800	130	0.8	51	0.5	19	22	22
1st quartile	8100	0.4	2.5	38	0.3	0.4	3200	24	7	62	13000	14	2000	140	0.8	79	0.5	24	24	29
Median	9500	0.4	8	47	0.3	0.4	4000	27	10	130	15000	25	2300	170	0.8	170	0.5	32	27	40
3rd quartile	11000	0.4	15	65	0.3	0.4	5500	31	18	330	17000	51	2800	200	0.8	440	1.5	38	30	64
95th	14800	1.2	29	95	0.3	0.9	8300	39	31	640	20000	130	3900	260	0.8	900	3.0	49	36	110
Maximum	21000	5.3	53	200	0.5	1.2	37000	57	46	920	23000	270	6500	310	2.1	1200	4.0	86	44	260
Mean	9849	0.5	11	54	0.3	0.5	4700	28	13	221	14974	42	2534	177	0.8	293	1.0	32	28	51
Geometric mean	9574	0.5	8	49	0.3	0.4	4169	27	11	143	14653	28	2445	172	0.8	187	0.8	30	27	43
Sample std. dev.	2422	0.4	9	24	0.0	0.2	3188	6	8	202	3068	44	722	44	0.2	274	0.8	10	5	32
CV (std. dev./mean)	25%	81%	85%	45%	16%	38%	68%	23%	64%	92%	21%	105%	29%	25%	22%	94%	78%	33%	17%	64%
Lower CI for the mean	9566	0.5	10	51	0.3	0.4	4327	27	12	197	14616	37	2450	172	0.8	261	0.9	30	27	47
Upper CI for the mean	10132	0.6	12	56	0.3	0.5	5072	29	14	245	15332	48	2619	182	0.8	325	1.1	33	28	54
Kurtosis	1.8	57.0	2.2	6.4	31.2	5.2	50.1	3.1	1.3	0.9	0.0	5.7	3.4	0.1	24.7	1.0	1.8	2.8	0.4	8.3
Skewness	1.0	6.3	1.4	1.9	5.7	2.6	5.8	1.3	1.3	1.2	0.2	2.2	1.4	0.6	5.0	1.3	1.5	0.8	0.5	2.2

n = 257 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.1.4: Summary Statistics for 10-20 cm Soil Samples from Coniston Residential Yards, Excluding Garden Properties

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	19	0.3	0.4	1400	16	4	17	8500	4	1200	79	0.8	22	0.5	10	17	10
10th	6700	0.4	2.5	31	0.3	0.4	2400	20	6	42	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7600	0.4	2.5	37	0.3	0.4	2800	23	8	78	12000	14	2000	140	0.8	97	0.5	24	24	26
Median	9200	0.4	8	50	0.3	0.4	3600	26	10	155	14000	29	2300	170	0.8	190	0.5	30	27	38
3rd quartile	11000	0.4	14	69	0.3	0.4	4900	31	16	330	16000	60	2900	200	0.8	390	1.0	39	30	59
95th	15000	1.0	23	110	0.3	0.4	7895	39	22	510	20000	150	4200	280	0.8	659	3	50	37	120
Maximum	19000	2.7	55	200	0.5	1.0	30000	45	43	1100	28000	280	5300	360	2	1400	9	78	42	210
Mean	9569	0.5	10	57	0.3	0.4	4297	27	12	215	14651	44	2517	176	0.8	268	1.0	31	27	49
Geometric mean	9242	0.5	8	52	0.3	0.4	3786	26	11	150	14293	29	2407	170	0.8	188	0.8	29	27	40
Sample std. dev.	2632	0.3	7	29	0.0	0.1	3055	6	7	178	3377	45	790	48	0.1	224	0.9	11	5	34
CV (std. dev./mean)	28%	66%	75%	51%	18%	24%	71%	23%	54%	83%	23%	101%	31%	27%	17%	84%	93%	34%	17%	70%
Lower CI for the mean	9260	0.5	9	54	0.3	0.4	3938	26	11	194	14254	39	2424	171	0.8	242	0.9	30	27	45
Upper CI for the mean	9878	0.5	11	61	0.3	0.4	4656	28	13	236	15048	50	2610	182	0.8	295	1.1	32	28	53
Kurtosis	1.4	20.4	4.9	4.6	23.7	18.0	34.7	0.3	3.6	3.4	1.6	4.7	0.8	0.6	27.1	3.7	21.7	0.6	0.4	4.7
Skewness	1.1	4.3	1.6	1.9	5.1	4.4	5.0	0.8	1.6	1.5	1.0	2.0	1.1	0.8	5.4	1.6	3.6	0.5	0.5	2.0

n = 282 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.2 Copper Cliff Residential Yard Results Summary

Table A2.2.1: Number of Residential Properties in Copper Cliff where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Copper Cliff	73 (9 gardens)	73	73	73	73	70	39	64	52	44	23

Table A2.2.2: Summary Statistics for 0-5 cm Soil Samples from Copper Cliff Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6200	0.4	2.5	28	0.3	0.4	2600	20	6	65	11000	10	2000	110	0.7	71	0.5	16	17	23
10th	8700	0.4	7	45	0.3	0.4	4450	29	13	395	14000	30	2600	160	0.8	320	2	23	25	44
1st quartile	9600	0.4	10	53	0.3	0.9	5700	33	18	690	16000	43	3200	180	0.8	530	4	31	28	56
Median	11000	0.4	15	68	0.3	1.4	7550	38	29	1200	19000	70	3800	210	0.8	885	6	39	31	80
3rd quartile	13000	0.4	23	91	0.3	2.2	11000	46	42	2000	23000	120	4400	230	1.6	1300	11	44	34	130
95th	15000	1.0	44	128	0.3	3.4	21000	60	75	3075	32750	220	8000	270	2.4	2375	16	52	38	188
Maximum	19000	2.2	72	180	0.3	5.2	82000	93	100	5600	49000	410	17000	450	3.8	3200	49	71	51	250
Mean	11227	0.5	18	74	0.3	1.6	9629	40	33	1440	20515	91	4282	208	1.2	1017	8	38	31	95
Geometric mean	11027	0.5	15	70	0.2	1.3	8083	39	28	1105	19667	71	3957	204	1.0	803	6	36	31	83
Sample std. dev.	2136	0.3	12	28	0.0	1.0	8183	11	20	994	6286	70	2108	41	0.6	658	6	10	5	48
CV (std. dev./mean)	19%	54%	67%	38%	0%	61%	85%	28%	60%	69%	31%	77%	49%	20%	55%	65%	78%	26%	15%	51%
Lower CI for the mean	10968	0.5	17	71	0.3	1.5	8640	39	31	1320	19755	82	4027	203	1.1	937	7	36	30	89
Upper CI for the mean	11485	0.5	20	78	0.3	1.7	10619	42	36	1560	21275	99	4537	213	1.2	1096	9	39	32	101
Kurtosis	0.3	14.8	1.6	1.6		0.1	42.6	3.8	0.9	2.3	1.4	5.1	12.5	4.2	2.2	0.7	10.7	0.2	0.8	0.2
Skewness	0.5	3.6	1.3	1.2		0.7	5.5	1.5	1.1	1.3	1.1	2.0	3.1	0.8	1.6	1.0	2.4	0.0	0.1	0.9

n = 266

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.2.3: Summary Statistics for 5-10 cm Soil Samples from Copper Cliff Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6900	0.4	2.5	28	0.3	0.4	2100	20	5	58	8100	8	1700	84	0.8	54	0.5	11	20	21
10th	9100	0.4	7	45	0.3	0.4	3700	28	12	283	15000	21	2500	160	0.8	253	2	22	26	36
1st quartile	10000	0.4	11	59	0.3	0.4	4400	31	15	495	16000	36	2900	180	0.8	400	2	30	29	48
Median	12000	0.4	18	79	0.3	0.8	6050	38	21	705	19000	60	3400	220	0.8	625	4	37	33	69
3rd quartile	15000	0.8	29	105	0.3	1.2	7750	46	31	1100	24000	100	4000	250	0.8	950	5	46	38	94
95th	19000	1.5	50	140	0.3	2.0	12000	56	46	1700	28850	190	5585	319	1.6	1785	8	55	42	149
Maximum	25000	4.9	94	290	0.3	3.7	37000	90	70	2800	41000	330	12000	350	2.0	3100	14	90	46	210
Mean	12725	0.6	22	87	0.3	0.9	6722	39	24	817	20309	77	3594	219	0.8	747	4	37	33	75
Geometric mean	12337	0.5	17	79	0.2	0.7	6077	38	21	673	19728	59	3453	213	0.8	595	3	36	33	67
Sample std. dev.	3222	0.5	15	40	0.0	0.6	3589	10	12	474	4956	58	1173	50	0.2	501	2	12	6	36
CV (std. dev./mean)	25%	82%	66%	46%	0%	67%	53%	26%	50%	58%	24%	75%	33%	23%	29%	67%	58%	32%	17%	48%
Lower CI for the mean	12334	0.6	20	82	0.3	0.8	6286	38	22	760	19708	70	3451	213	0.8	686	4	36	33	71
Upper CI for the mean	13117	1	24	92	0.3	0.9	7158	40	25	875	20911	84	3736	225	0.8	808	4	39	34	80
Kurtosis	0.1	24.0	2.5	5.6		3.2	20.3	1.9	0.9	1.2	1.1	2.7	14.9	0.1	12.3	2.4	1.7	1.6	-0.8	0.8
Skewness	0.7	4.0	1.3	1.8		1.5	3.3	0.9	1.0	1.0	0.7	1.5	3.0	0.3	3.7	1.4	1.1	0.6	0.1	1.0

n = 264 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.2.4: Summary Statistics for 10-20 cm Soil Samples from Copper Cliff Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5800	0.4	3	30	0.3	0.4	1700	19	6	68	11000	6	2000	110	0.8	96	0.5	11	19	16
10th	8900	0.4	8	51	0.3	0.4	3500	26	10	223	14000	20	2500	160	0.8	230	1.0	23	26	36
1st quartile	10000	0.4	12	64	0.3	0.4	4300	31	14	365	17000	34	2800	180	0.8	360	2	30	29	45
Median	12000	0.4	19	87	0.3	0.4	5600	37	20	590	19500	68	3300	215	0.8	570	3	38	34	63
3rd quartile	15000	1.1	33	120	0.3	0.9	7000	44	27	845	22000	120	3900	260	0.8	800	4	46	38	91
95th	18000	2.0	56	170	0.3	1.3	10850	51	38	1300	27000	240	5500	320	2	1200	6	59	43	167
Maximum	23000	5.8	99	720	0.6	1.9	14000	85	46	2000	59000	610	8800	560	3	1900	11	95	54	310
Mean	12552	0.8	24	97	0.3	0.6	5904	38	21	630	19871	93	3522	225	0.8	619	3	39	34	75
Geometric mean	12164	0.6	19	87	0.3	0.6	5500	37	19	528	19319	65	3398	217	0.8	527	2	37	33	65
Sample std. dev.	3133	0.7	16	55	0.0	0.3	2251	9	9	348	5109	85	1026	61	0.3	335	2	13	6	45
CV (std. dev./mean)	25%	85%	67%	57%	10%	55%	38%	24%	42%	55%	26%	91%	29%	27%	35%	54%	57%	33%	17%	60%
Lower CI for the mean	12172	0.7	22	90	0.2	0.6	5631	37	20	588	19251	83	3397	218	0.8	579	3	37	33	70
Upper CI for the mean	12933	0.9	26	104	0.3	0.7	6177	39	22	672	20491	104	3647	232	0.9	660	3	40	34	81
Kurtosis	0.1	13.3	2.2	60.1	132.2	0.7	1.4	1.8	-0.4	0.8	15.6	7.4	4.7	2.9	20.6	1.0	2.3	1.8	-0.1	6.0
Skewness	0.5	2.9	1.3	5.7	11.5	1.3	1.0	0.6	0.5	0.8	2.5	2.2	1.8	1.0	4.4	0.9	1.1	0.7	0.2	2.1

n = 264 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.3 Falconbridge Residential Yard Results Summary

Table A2.3.1: Number of Residential Properties in Falconbridge where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Falconbridge	50 (6 gardens)	50	50	49	49	46	45	49	49	23	8

Table A2.3.2: Summary Statistics for 0-5 cm Soil Samples for Falconbridge Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	15	0.3	0.4	1600	11	5	31	9200	6	1500	69	0.8	37	0.5	11	10	15
10th	7080	0.4	11	32	0.3	0.4	4380	28	11	87	13000	17	2100	140	0.8	140	0.5	21	24	33
1st quartile	7900	0.4	31	41	0.3	1.5	5900	33	32	460	16000	42	2400	160	0.8	550	1.0	27	26	56
Median	9000	0.4	52	51	0.3	2.2	7500	41	51	810	21000	71	2700	180	2.4	850	2	34	29	71
3rd quartile	10000	0.4	110	58	0.3	3.0	9600	52	75	1200	27000	130	3200	200	3.9	1300	4	39	33	100
95th	12000	1.2	190	71	0.3	4.5	13000	73	111	1910	38000	200	4010	240	8.1	2110	6	45	38	151
Maximum	17000	3.8	300	86	0.3	6.7	40000	100	190	3000	49000	370	5700	290	14	3700	12	51	44	240
Mean	9059	0.5	74	50	0.3	2.3	8167	45	56	874	22025	88	2864	182	2.9	956	3	33	30	80
Geometric mean	8904	0.5	50	48	0.2	1.9	7419	42	44	610	20709	65	2792	178	2.2	705	2	31	29	71
Sample std. dev.	1686	0	59	13	0.0	1.2	4330	15	33	590	7903	67	674	34	2.3	636	2	8	5	41
CV (std. dev./mean)	19%	85%	81%	26%	0%	53%	53%	34%	60%	68%	36%	76%	24%	19%	79%	67%	69%	25%	17%	51%
Lower CI for the mean	8823	0.5	65	48	0.3	2.1	7561	42	51	791	20917	79	2770	177	2.6	867	2	31	29	74
Upper CI for the mean	9296	1	82	52	0.3	2.5	8774	47	61	956	23132	98	2959	186	3.2	1045	3	34	30	86
Kurtosis	1.7	25.9	1.5	0.0		0.2	25.9	0.5	1.0	0.9	0.9	2.7	2.5	0.3	3.1	1.6	4.1	-0.4	0.8	2.5
Skewness	0.5	4.7	1.2	0.0		0.4	4.0	0.8	0.8	0.8	0.9	1.4	1.1	0.2	1.6	1.0	1.5	-0.3	0.1	1.3

n = 171

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.3.3: Summary Statistics for 5-10 cm Soil Samples for Falconbridge Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4700	0.4	2.5	22	0.3	0.4	2500	17	5	10	10000	4	1500	110	0.8	22	0.5	13	19	14
10th	7800	0.4	21	31	0.3	0.4	3400	25	12	148	12800	16	1900	130	0.8	176	0.5	21	25	28
1st quartile	8800	0.4	37	38	0.3	0.4	4500	29	23	320	15000	27	2100	150	0.8	450	1.0	26	27	41
Median	9800	0.4	77	49	0.3	1.2	6600	36	38	600	20000	57	2400	180	0.8	780	3	31	31	59
3rd quartile	11000	0.4	160	58	0.3	1.8	9450	46	61	1100	26000	120	2700	220	0.8	1100	4	38	35	89
95th	13000	1.2	321	74	0.3	3.4	13000	75	111	2010	40000	220	3300	300	2	2210	6	44	41	140
Maximum	15000	8.1	570	89	0.5	4.8	33000	120	150	3000	49000	340	3900	380	9	3100	11	50	56	210
Mean	9828	0.6	113	49	0.3	1.4	7326	40	44	785	21719	81	2430	192	1.0	885	3	32	31	68
Geometric mean	9685	0.5	70	47	0.3	1.1	6577	37	34	530	20154	55	2390	185	0.9	635	2	30	31	59
Sample std. dev.	1648	0.8	108	14	0.0	1.0	3654	17	30	617	8878	68	447	52	0.8	635	2	8	6	36
CV (std. dev./mean)	17%	136%	95%	28%	7%	70%	50%	42%	68%	79%	41%	84%	18%	27%	74%	72%	67%	26%	19%	54%
Lower CI for the mean	9597	0.5	98	47	0.2	1.2	6814	38	40	698	20474	72	2367	185	0.9	796	3	30	31	62
Upper CI for the mean	10059	0.7	129	51	0.3	1.5	7838	42	49	871	22963	91	2493	199	1.1	974	3	33	32	73
Kurtosis	0.5	53.8	2.8	-0.4	199	1.2	11.3	5.1	1.1	1.4	0.8	0.9	0.8	0.7	52.4	1.5	1.7	-0.6	1.6	1.4
Skewness	0.1	6.8	1.6	0.2	14.1	1.2	2.2	2.0	1.2	1.3	1.1	1.2	0.6	1.0	5.9	1.2	1.1	-0.2	0.9	1.1

n = 171 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.3.4: Summary Statistics for 10-20 cm Soil Samples for Falconbridge Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5200	0.4	2.5	24	0.3	0.4	2000	17	5	13	10000	4	1400	97	0.8	25	0.5	12	17	15
10th	7800	0.4	17	32	0.3	0.4	3200	22	9	94	12000	11	1700	130	0.8	140	0.5	21	24	22
1st quartile	8700	0.4	28	39	0.3	0.4	3900	27	13	160	13000	18	2000	150	0.8	240	1.0	25	27	31
Median	9900	0.4	55	47	0.3	0.4	5300	32	20	310	16000	32	2200	170	0.8	410	2	31	30	43
3rd quartile	11000	0.4	130	60	0.3	1.1	6700	39	31	530	20000	71	2500	210	0.8	620	3	36	34	61
95th	13000	1.0	252	78	0.3	1.9	10100	52	56	1010	28100	150	3030	301	2	1200	5	43	41	95
Maximum	20000	1.4	620	110	0.3	3.4	30000	110	110	2000	38000	230	7500	400	6	2500	8	55	73	140
Mean	9963	0.5	90	49	0.3	0.8	5819	34	25	401	17276	50	2329	185	0.9	493	2	31	31	49
Geometric mean	9782	0.4	56	47	0.2	0.7	5264	32	21	282	16562	34	2271	177	0.8	373	2	29	30	43
Sample std. dev.	1935	0.2	92	15	0.0	0.6	3106	11	18	338	5457	44	598	57	0.6	389	2	8	6	24
CV (std. dev./mean)	19%	45%	102%	31%	0%	70%	54%	34%	72%	84%	32%	89%	26%	31%	68%	79%	77%	27%	20%	49%
Lower CI for the mean	9692	0.4	77	47	0.3	0.7	5383	32	23	354	16512	44	2245	177	0.8	438	2	30	30	45
Upper CI for the mean	10234	0.5	103	51	0.3	0.9	6254	35	28	449	18041	56	2412	193	1.0	547	2	32	32	52
Kurtosis	3.2	9.6	7.3	1.1		4.2	19.9	11.6	7.1	3.5	2.6	1.3	28.3	1.4	46.0	7.0	2.7	0.2	11.3	0.5
Skewness	0.9	3.2	2.3	0.9		1.9	3.4	2.5	2.3	1.7	1.5	1.4	3.8	1.3	6.3	2.2	1.6	0.1	2.1	1.0

n = 199 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.4 Sudbury Core Residential Yard Results Summary

Table A2.4.1: Number of Residential Properties in Sudbury Core where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Sudbury Core	78 (3 gardens)	78	70	60	59	20	7	15	9	13	3

Table A2.4.2: Summary Statistics for 0-5 cm Soil Samples for Sudbury Core Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5900	0.4	2.5	25	0.3	0.4	1500	20	4	28	11000	7	1500	120	0.8	33	0.5	15	20	17
10th	7730	0.4	5	34	0.3	0.4	3330	26	8	113	13000	18	2200	150	0.8	123	0.5	23	24	34
1st quartile	8600	0.4	6	46	0.3	0.4	4000	29	11	200	14000	31	2500	170	0.8	195	1.0	28	27	46
Median	10000	0.4	9	60	0.3	0.9	5150	34	15	315	17000	50	2900	200	0.8	300	2	37	29	74
3rd quartile	12000	0.4	13	86	0.3	1.3	6750	42	21	475	19000	86	3500	230	0.8	465	2	43	33	110
95th	14000	1.1	21	120	0.3	2.2	10850	56	44	920	27000	160	4400	300	0.8	1043	5	49	38	179
Maximum	17000	2.7	34	210	0.3	4.1	15000	110	75	1600	36000	320	6000	1200	3.2	2000	9	84	42	230
Mean	10316	0.5	10	68	0.3	1.0	5730	37	18	392	17386	67	3039	216	0.8	400	2	37	30	84
Geometric mean	10084	0.5	9	62	0.2	0.8	5283	36	15	301	16876	51	2953	205	0.8	306	1.5	35	30	72
Sample std. dev.	2201	0	6	30	0.0	0.7	2395	13	11	292	4488	52	747	104	0.2	321	1.4	11	5	46
CV (std. dev./mean)	21%	60%	58%	44%	0%	74%	42%	34%	63%	75%	26%	78%	25%	48%	28%	81%	76%	29%	15%	55%
Lower CI for the mean	9995	0.4	10	64	0.3	0.9	5381	35	16	349	16731	60	2930	201	0.7	353	2	35	29	77
Upper CI for the mean	10637	0.5	11	73	0.3	1.1	6079	39	20	434	18040	75	3148	232	0.8	446	2	38	31	91
Kurtosis	-0.1	21.3	3.1	1.9		3.0	1.1	7.9	4.7	3.7	2.3	4.4	1.3	52.9	84.8	5.2	5.5	1.8	-0.4	0.0
Skewness	0.4	4.2	1.6	1.1		1.6	1.1	2.2	1.9	1.7	1.3	1.8	0.9	6.4	8.7	2.0	2.0	0.5	0.3	0.8

n = 156

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.4.3: Summary Statistics for 5-10 cm Soil Samples for Sudbury Core Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5100	0.4	2.5	18	0.3	0.4	1500	18	4	17	9400	5	1400	110	0.8	23	0.5	10	20	16
10th	7500	0.4	5	30	0.3	0.4	2600	23	6	68	12000	10	2000	140	0.8	79	0.5	21	24	24
1st quartile	8300	0.4	5	41	0.3	0.4	3200	27	8	120	14000	17	2300	160	0.8	120	1.0	27	26	30
Median	10000	0.4	9	60	0.3	0.4	4000	31	11	200	15000	34	2700	190	0.8	227	1.0	34	30	61
3rd quartile	12000	0.4	13	78	0.3	0.4	5400	37	14	290	18000	64	3100	230	0.8	330	2	41	33	84
95th	14000	1.0	18	120	0.3	1.1	8990	50	20	449	21000	140	3900	300	0.8	519	3	51	39	150
Maximum	20000	1.4	24	160	0.3	1.5	14000	59	36	830	26000	310	6600	480	2	970	5	71	46	210
Mean	10234	0.5	10	63	0.3	0.5	4647	32	12	219	15711	48	2773	201	0.8	248	1.3	34	30	66
Geometric mean	9946	0.4	9	57	0.2	0.5	4220	31	11	176	15437	33	2684	194	0.8	199	1.1	33	29	55
Sample std. dev.	2514	0.2	5	29	0.0	0.3	2270	8	5	139	2978	44	759	55	0.1	160	0.8	10	5	41
CV (std. dev./mean)	25%	45%	48%	46%	0%	52%	49%	26%	44%	64%	19%	92%	27%	27%	19%	65%	59%	29%	15%	62%
Lower CI for the mean	9865	0.4	9	59	0.3	0.5	4314	31	11	199	15274	41	2661	193	0.8	225	1.2	33	29	60
Upper CI for the mean	10602	0.5	10	67	0.3	0.5	4980	33	12	240	16148	54	2884	209	0.8	272	1.4	36	30	72
Kurtosis	1.9	8.1	-0.3	0.9		4.2	3.7	0.8	3.4	3.5	-0.1	7.6	5.9	4.3	52.2	3.4	2.4	0.4	0.6	1.3
Skewness	1.0	3.1	0.6	1.0		2.3	1.8	0.9	1.4	1.4	0.5	2.2	1.8	1.5	7.1	1.4	1.3	0.3	0.6	1.1

n = 154

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.4.4: Summary Statistics for 10-20 cm Soil Samples for Sudbury Core Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4700	0.4	2.5	17	0.3	0.4	1400	18	5	17	9000	4	1300	110	0.8	30	0.5	11	19	10
10th	6800	0.4	5	32	0.3	0.4	2200	20	6	51	11000	8	2000	140	0.8	67	0.5	19	23	21
1st quartile	7600	0.4	5	40	0.3	0.4	2800	24	7	83	12000	15	2200	150	0.8	110	0.5	25	25	31
Median	9500	0.4	8	56	0.3	0.4	3650	29	9	140	15000	27	2600	180	0.8	170	1.0	32	28	52
3rd quartile	12000	0.4	10	83	0.3	0.4	4700	34	12	200	17000	53	3000	230	0.8	240	1.0	42	33	78
95th	16000	1.0	17	140	0.3	0.9	8785	50	18	410	24000	130	5295	330	0.8	489	2	52	41	159
Maximum	21000	2.0	22	240	0.3	1.3	13000	62	28	530	28000	470	8300	390	3	820	4	66	50	340
Mean	10117	0.5	8	67	0.3	0.4	4252	31	10	161	15212	44	2875	200	0.8	196	1.1	33	29	61
Geometric mean	9638	0.4	8	59	0.2	0.4	3821	29	9	129	14789	28	2714	191	0.8	160	0.9	32	29	49
Sample std. dev.	3330	0.2	4	39	0.0	0.2	2202	9	4	110	3783	52	1133	62	0.2	133	0.7	11	6	44
CV (std. dev./mean)	33%	49%	48%	58%	0%	36%	52%	31%	41%	68%	25%	119%	40%	31%	25%	68%	66%	33%	21%	72%
Lower CI for the mean	9629	0.4	8	62	0.3	0.4	3929	29	9	145	14657	36	2709	190	0.7	176	1.0	32	28	54
Upper CI for the mean	10605	0.5	9	73	0.3	0.5	4575	32	11	177	15766	52	3041	209	0.8	215	1.2	35	30	67
Kurtosis	1.7	13.3	1.5	3.3		12.1	3.3	1.4	3.1	1.8	0.9	25.3	5.7	0.8	94.8	4.9	4.5	-0.3	1.3	9.8
Skewness	1.2	3.5	1.3	1.6		3.6	1.8	1.2	1.5	1.4	1.1	4.1	2.2	1.1	9.4	1.9	2.0	0.3	1.1	2.4

n = 182

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

2.5 Inner Communities plus Skead Residential Yard Results Summary

Table A2.5.1: Number of Residential Properties in Inner Sudbury Communities where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
New Sudbury	43	43	11	30	2	1	0	0	0	0	0
East Sudbury	29	29	11	19	3	1	1	4	2	2	1
South Sudbury	31	31	9	19	6	1	0	1	1	2	1
Lively	21 (3 gardens)	21	11	13	0	0	0	0	0	1	1
Azilda	15	14	2	2	0	0	0	0	0	0	0
Garson	16	16	2	6	0	0	0	0	0	0	0
Inner Sudbury	**155**	**154**	**46**	**88**	**11**	**5**	**1**	**5**	**3**	**5**	**3**
Skead	6	4	0	1	0	0	0	0	0	0	0

Table A2.5.2: Summary Statistics for 0-5 cm Soil Samples for Inner Communities plus Skead Residential Yards

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	24	0.2	1700	17	4.0	20	7500	4	1800	120	0.8	30	0.5	14	17	15
10th	7600	0.4	2.5	33	0.4	3400	25	6.0	39	12000	9	2200	150	0.8	51	0.5	26	25	24
1st quartile	8800	0.4	2.5	39	0.4	3900	28	6.0	54	13000	12	2500	180	0.8	67	0.5	32	27	29
Median	10000	0.4	5.0	49	0.4	4800	31	8.0	78	14000	16	2900	200	0.8	87	0.5	37	30	35
3rd quartile	12000	0.4	7.0	62	0.4	5900	38	9.0	120	16000	25	3600	240	0.8	140	0.5	42	33	47
95th	15000	0.8	12	88	0.8	8075	47	15	210	20000	46	4700	310	1.5	265	1.0	50	38	71
Maximum	19000	2.5	30	130	2.0	18000	70	41	1400	27000	220	9200	450	6.4	1400	6.0	63	47	150
Mean	10644	0.5	5.4	53	0.4	5164	33	8.6	104	14752	22	3131	213	0.8	121	0.7	37	30	40
Geometric mean	10362	0.4	4.5	50	0.4	4851	32	8.0	81	14485	18	3014	207	0.8	97	0.6	36	30	37
Sample std. dev.	2488	0.2	3.8	19	0.2	2079	7	4.2	122	2951	23	968	53	0.4	128	0.5	8	5	19
CV (std. dev./mean)	23%	55%	70%	36%	42%	40%	22%	49%	117%	20%	104%	31%	25%	48%	106%	74%	22%	16%	46%
Lower CI for the mean	10372	0.4	5.0	51	0.4	4937	32	8.1	91	14430	20	3026	207	0.8	107	0.6	36	30	38
Upper CI for the mean	10915	0.5	5.9	55	0.5	5391	34	9.0	117	15074	25	3237	219	0.9	135	0.7	38	31	42
Kurtosis	0.3	37.8	8.2	1.2	30.1	10.8	1.6	25.8	57.7	2.8	31.9	10.4	2.1	124.9	55.2	61.7	0.0	0.8	8.9
Skewness	0.6	5.9	2.3	1.1	5.0	2.6	0.9	4.2	6.7	1.3	5.0	2.4	1.1	9.8	6.6	6.9	-0.1	0.5	2.4

n = 326

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.5.3: Summary Statistics for 5-10 cm Soil Samples for Inner Communities plus Skead Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5200	0.4	2.5	17	0.3	0.4	1200	17	4.0	8	7500	3	1600	110	0.8	17	0.5	13	17	9
10th	6900	0.4	2.5	29	0.3	0.4	2610	23	5.0	29	11000	6	2100	150	0.8	37	0.5	23	24	19
1st quartile	8400	0.4	2.5	36	0.3	0.4	3300	26	6.0	41	12000	9	2300	160	0.8	51	0.5	28	26	23
Median	10000	0.4	2.5	45	0.3	0.4	4200	30	7.0	59	14000	12	2850	190	0.8	69	0.5	34	30	28
3rd quartile	12000	0.4	7.0	59	0.3	0.4	5200	35	8.0	83	16000	16	3500	230	0.8	100	1.0	41	33	36
95th	16000	0.4	10	90	0.3	0.4	8170	46	11	140	20000	33	5295	320	0.8	160	1.0	49	42	63
Maximum	22000	6.5	34	150	0.5	1.0	22000	75	29	880	26000	310	10000	400	3.2	880	5.0	64	50	120
Mean	10527	0.5	5.0	50	0.3	0.4	4539	31	7.3	71	14527	17	3099	204	0.8	84	0.7	35	31	33
Geometric mean	10142	0.4	4.1	47	0.3	0.4	4181	31	7.0	58	14205	12	2944	197	0.8	72	0.7	33	30	30
Sample std. dev.	2925	0.4	3.9	21	0.0	0.1	2220	8	2.7	70	3178	29	1116	57	0.2	70	0.4	9	6	16
CV (std. dev./mean)	28%	90%	79%	42%	15%	19%	49%	25%	37%	98%	22%	171%	36%	28%	31%	83%	59%	25%	19%	48%
Lower CI for the mean	10206	0.4	4.6	48	0.3	0.4	4295	31	7.0	63	14178	14	2976	198	0.8	77	0.7	34	30	31
Upper CI for the mean	10849	0.5	5.4	53	0.3	0.4	4782	32	7.6	79	14876	20	3222	210	0.8	92	0.8	36	31	34
Kurtosis	0.4	167.1	18.4	3.6	35.8	33.0	20.0	3.7	20.0	86.5	1.5	65.4	8.0	0.8	38.0	73.5	43.5	-0.2	0.7	8.0
Skewness	0.7	12.2	3.3	1.6	6.1	5.8	3.5	1.4	3.4	8.2	1.0	7.7	2.2	1.0	5.7	7.2	5.2	0.2	0.7	2.4

n = 322 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.5.4: Summary Statistics for 10-20 cm Soil Samples for Inner Sudbury plus Skead Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	16	0.3	0.4	1400	15	4.0	6	8000	3	1500	100	0.8	16	0.5	13	17	9
10th	6200	0.4	2.5	25	0.3	0.4	2400	22	4.0	23	10000	4	2100	130	0.8	30	0.5	21	23	15
1st quartile	7850	0.4	2.5	35	0.3	0.4	3100	25	5.0	33	12000	6	2300	160	0.8	42	0.5	28	26	19
Median	10000	0.4	2.5	48	0.3	0.4	4000	29	7.0	48	14000	9	2900	200	0.8	57	0.5	34	30	26
3rd quartile	12000	0.4	6.0	67	0.3	0.4	5300	37	9.0	72	17000	14	3900	250	0.8	85	0.5	41	34	35
95th	18000	0.4	10	110	0.3	0.4	8625	50	12	130	22000	32	6425	330	0.8	163	1.0	53	44	59
Maximum	23000	3.9	21	160	0.5	0.8	24000	65	16	340	30000	150	11000	430	21	330	2.0	60	62	110
Mean	10557	0.4	4.7	54	0.3	0.4	4544	31	7.2	58	14722	13	3326	208	0.8	71	0.6	35	31	30
Geometric mean	9943	0.4	3.9	48	0.3	0.4	4086	30	6.8	48	14264	10	3093	199	0.8	60	0.6	33	30	27
Sample std. dev.	3757	0.3	3.2	27	0.0	0.0	2497	9	2.4	40	3840	15	1424	64	1.1	44	0.2	10	7	15
CV (std. dev./mean)	36%	60%	67%	50%	14%	12%	55%	30%	33%	68%	26%	113%	43%	31%	136%	62%	34%	29%	23%	52%
Lower CI for the mean	10141	0.4	4.3	51	0.3	0.4	4267	30	6.9	54	14297	11	3168	201	0.7	66	0.6	33	30	28
Upper CI for the mean	10974	0.5	5.0	57	0.3	0.4	4821	33	7.4	63	15148	15	3483	215	1.0	76	0.6	36	32	32
Kurtosis	0.7	113	4.6	1.9	48.7	59.2	16.7	1.5	1.1	11.3	1.6	33.5	4.9	0.3	302.9	5.0	8.6	-0.5	1.5	4.7
Skewness	0.9	9.9	1.9	1.3	7.1	7.8	3.1	1.1	0.9	2.5	1.0	5.0	1.9	0.8	17.2	1.9	2.6	0.2	0.9	1.9

n = 316 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.6 Residential Garden Results Summary

Table A2.6.1: Summary of All Coniston Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	120	0.5	0.2	2	16	0.5	540	2	0.2	1	0.2	0.6	0.5	6
10th	5	0.2	0.2	1	10	0.1	886	0.5	0.2	4	23	0.5	973	5	0.2	1	0.2	1.1	0.5	10
1st quartile	5	0.2	0.2	1	14	0.1	1400	0.5	0.2	5	35	0.5	1200	6	0.3	3	0.2	2.3	0.5	15
Median	14	0.2	0.2	3	18	0.1	2300	0.5	0.2	7	67	0.5	1800	11	0.5	7	0.2	7.2	0.5	22
3rd quartile	53	0.2	0.2	12	23	0.2	5450	0.7	0.3	11	110	0.5	3300	14	0.7	10	0.2	13	0.5	35
95th	213	0.2	0.6	37	34	0.6	19000	1.3	0.4	19	287	1.8	7120	32	3.5	27	0.5	34	0.5	79
Maximum	1100	0.2	1.0	60	43	0.8	21000	3.8	1.4	24	1600	110	12000	59	17	49	1.2	41	2.8	300
Mean	63	0.2	0.3	9	19	0.2	5268	0.7	0.3	9	122	3.1	2573	13	1.3	9	0.2	10	0.6	33
Geometric mean	20	0.2	0.2	3	17	0.2	2692	0.6	0.2	7	69	0.7	1993	10	0.6	6	0.2	5.7	0.5	24
Sample std. dev.	164	0.0	0.2	14	8	0.2	6237	0.5	0.2	5	233	16	2195	11	2.9	9	0.2	11	0.3	43
CV (std. dev./mean)	262%	0%	63%	149%	41%	80%	120%	73%	82%	63%	194%	515%	86%	87%	220%	107%	67%	106%	61%	131%
Lower CI for the mean	15	0.2	0.2	5	17	0.2	3438	0.6	0.2	7	53	-1.5	1929	10	0.5	6	0.2	7.1	0.5	21
Upper CI for the mean	111	0.2	0.3	13	21	0.3	7098	0.9	0.3	10	190	7.7	3217	16	2.2	12	0.3	13	0.7	46
Kurtosis	34.2		8.5	6.6	1.4	3.4	0.8	28.1	18.2	0.8	34.5	47.3	7.1	6.9	20.6	7.0	24.9	1.5	43.5	30.9
Skewness	5.6		2.9	2.5	1.0	2.0	1.5	4.9	4.2	1.3	5.6	6.9	2.4	2.5	4.4	2.5	4.7	1.5	6.5	5.2

n = 48

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.6.2: Summary Statistics for Residential Garden Soil from Coniston

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5500	0.4	2.5	33	0.4	2600	20	6	19	8900	4	1900	84	0.75	39	0.5	25	18	30
10th	7400	0.4	2.5	53	0.4	6320	23	6	54	1200	11	2780	190	0.75	61	0.5	34	21	33
1st quartile	8700	0.4	2.5	56	0.4	7300	27	7	60	1400	13	3050	225	0.75	84	0.5	39	26	46
Median	1100	0.4	6.0	72	0.4	8900	31	9	100	1500	22	3700	250	0.75	130	0.5	42	30	64
3rd quartile	1300	0.4	12	88	0.4	1250	34	15	245	1700	36	4050	280	0.75	315	0.5	48	34	105
95th	1300	0.4	18	110	0.4	1900	39	22	352	1800	108	5840	300	0.75	508	1.4	53	37	186
Maximum	1400	0.4	19	120	0.8	2400	40	24	400	2000	170	6600	320	0.75	570	2.0	54	38	210
Mean	1049	0.4	7.4	74	0.4	1013	30	11	142	1510	33	3693	244	0.75	190	0.6	42	29	83
Geometric mean	1023	0.4	5.7	70	0.4	9114	30	10	106	1485	23	3560	235	0.75	140	0.6	41	29	71
Sample std. dev.	2214	0.0	5.1	22	0.1	4651	5	5	107	2573	36	1030	54	0.00	155	0.4	7	5	49
CV (std. dev./mean)	21%	0%	70%	30%	18%	47%	18%	47%	77%	17%	111%	28%	22%	0%	83%	64%	18%	18%	61%
Lower CI for the mean	9633	0.4	5.4	65	0.4	8334	28	9	101	1410	19	3295	223	0.75	131	0.5	39	27	64
Upper CI for the mean	1134	0.4	9.3	82	0.4	1193	32	13	184	1609	47	4092	265	0.75	250	0.8	45	31	102
Kurtosis	-0.7		-0.3	-0.4	29.0	2.0	-0.3	0.8	-0.1	0.5	8.5	2.8	3.2		0.3	11.7	0.2	-0.4	0.8
Skewness	-0.4		0.8	0.3	5.4	1.2	-0.2	1.3	1.0	-0.7	2.9	1.2	-1.6		1.2	3.6	-0.5	-0.5	1.2

n = 29

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.6.3: Summary of All Copper Cliff Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	490	0.5	0.2	2	15	0.5	290	4	0.2	0.7	0.2	0.7	0.5	2
10th	5	0.2	0.2	1	5	0.1	842	0.5	0.2	5	26	0.5	418	6	0.2	1.5	0.2	1.1	0.5	5
1st quartile	7	0.2	0.2	3	7	0.1	1400	0.5	0.2	6	36	0.5	1100	13	0.2	5.3	0.2	2.2	0.5	12
Median	19	0.2	0.2	6	12	0.2	2300	0.5	0.2	8	73	0.5	1500	20	0.4	15	0.5	5.3	0.5	24
3rd quartile	135	0.2	0.6	13	20	0.3	5050	0.8	0.4	29	190	1.4	3300	39	1.1	33	1.5	17	0.5	45
95th	620	0.2	2.1	29	33	1.2	20600	2.5	2.2	109	1060	17	5860	120	6.3	75	8.1	43	1.6	91
Maximum	1900	0.4	9.0	58	45	2.0	31000	6.4	4.9	230	2400	38	6400	380	9.4	180	22	52	5.1	120
Mean	177	0.2	0.7	10	15	0.3	5573	1.0	0.6	27	264	2.9	2383	45	1.2	25	2.0	11	0.8	32
Geometric mean	34	0.2	0.4	6	12	0.2	3024	0.7	0.3	13	93	1.0	1729	23	0.5	11	0.7	5.6	0.6	21
Sample std. dev.	372	0.0	1.3	12	9	0.4	6908	1.2	0.9	43	507	7.2	1758	75	2.0	33	4.1	14	0.8	28
CV (std. dev./mean)	212%	14%	197%	114%	63%	130%	125%	124%	159%	160%	194%	249%	75%	166%	173%	135%	209%	121%	110%	90%
Lower CI for the mean	69	0.2	0.3	7	12	0.2	3569	0.6	0.3	15	117	0.8	1873	24	0.6	15	0.8	7.5	0.5	24
Upper CI for the mean	285	0.2	1.1	14	18	0.4	7578	1.3	0.8	40	411	5.0	2894	67	1.8	34	3.2	15	1.0	40
Kurtosis	12.3	49.0	33.4	7.1	0.8	9.0	3.4	14.0	12.4	10.4	11.4	14.7	-0.5	14.2	8.5	10.0	14.3	1.5	17.7	1.4
Skewness	3.4	7.0	5.4	2.4	1.1	3.0	1.9	3.7	3.4	3.0	3.3	3.8	0.8	3.7	3.0	2.8	3.7	1.6	4.1	1.4

n = 49 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.4: Summary Statistics for Residential Garden Soil from Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7700	0.4	2.5	38	0.4	5000	19	7	140	8600	16	2400	120	0.75	130	0.5	35	16	32
10th	9200	0.4	7.0	43	0.4	6300	26	8	230	12000	19	3000	160	0.75	200	1.0	37	22	40
1st quartile	10000	0.4	8.0	63	0.4	6800	27	11	280	13000	20	3200	180	0.75	275	1.5	39	25	43
Median	11000	0.4	16	77	0.4	8600	31	18	470	17000	69	3800	220	0.75	430	2.0	43	28	84
3rd quartile	12000	0.9	28	100	1.0	16000	35	21	700	19000	145	6000	240	0.75	615	3.0	48	31	130
95th	13000	1.4	38	270	1.9	34000	43	23	820	21000	530	7100	670	1.70	800	12	130	35	330
Maximum	13000	1.5	58	330	3.8	38000	64	110	5100	33000	640	7100	780	3.70	3700	36	160	38	380
Mean	11024	0.7	19	97	0.9	12681	32	20	682	16871	125	4462	264	0.94	578	5	53	28	114
Geometric mean	10913	0.6	14	82	0.7	10661	31	16	461	16181	66	4212	234	0.84	416	2	48	27	89
Sample std. dev.	1503	0.4	14	71	0.8	8661	9	21	1008	4972	165	1519	159	0.65	723	7.6	31	5	90
CV (std. dev./mean)	14%	53%	74%	75%	91%	70%	29%	104%	151%	30%	136%	35%	62%	71%	128%	171%	60%	20%	81%
Lower CI for the mean	10323	0.5	12	64	0.5	8641	28	11	212	14552	48	3754	190	0.63	241	1.0	38	25	72
Upper CI for the mean	11725	0.9	25	130	1.3	16721	37	30	1153	19190	202	5170	338	1.24	916	8.1	67	30	156
Kurtosis	0.1	-0.3	1.7	6.0	8.3	3.4	6.3	17.9	19.1	4.4	4.6	-1.3	6.0	16.6	17.8	14.4	8.2	0.6	3.5
Skewness	-0.7	0.9	1.3	2.5	2.6	1.9	1.9	4.1	4.3	1.2	2.3	0.5	2.5	4.0	4.1	3.6	3.0	-0.7	1.9

n = 21 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.5: Summary of All Falconbridge Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	6	0.1	290	0.5	0.4	6	35	0.5	1000	7	0.2	9	0.2	0.7	0.5	15
10th	5	0.2	0.2	0.5	8	0.1	702	0.5	0.4	6	37	0.5	1110	8	0.3	17	0.2	1.0	0.5	17
1st quartile	5	0.2	0.2	0.8	11	0.2	1100	0.5	0.6	7	44	0.5	1200	9	0.4	19	0.2	1.6	0.5	20
Median	8	0.2	0.2	1.3	18	0.2	1900	0.5	1.1	8	65	0.5	2450	11	0.6	31	0.2	2.5	0.5	32
3rd quartile	20	0.2	0.6	5.4	19	0.3	3200	0.5	1.8	12	110	1.6	3200	20	0.7	44	0.2	9.1	0.5	48
95th	69	0.2	1.5	14	21	0.5	5090	0.6	2.1	18	180	62	4005	23	0.9	49	0.2	14	0.5	72
Maximum	82	0.3	1.9	24	23	0.5	5200	0.8	2.2	25	180	130	4500	24	1.1	51	0.2	16	0.5	92
Mean	19	0.2	0.5	4.1	15	0.2	2339	0.5	1.2	10	85	12	2367	14	0.6	31	0.2	5.3	0.5	37
Geometric mean	11	0.2	0.3	1.9	14	0.2	1778	0.5	1.0	9	73	1.3	2086	13	0.5	28	0.2	3.3	0.5	32
Sample std. dev.	24	0.0	0.5	6.3	5	0.1	1538	0.1	0.6	5	50	36	1128	6	0.2	13	0.0	5.0	0.0	21
CV (std. dev./mean)	129%	14%	109%	162%	36%	54%	69%	16%	55%	55%	61%	311%	50%	45%	44%	44%	0%	100%	0%	60%
Lower CI for the mean	3	0.2	0.1	-0.1	11	0.2	1318	0.5	0.8	6	52	-12	1618	10	0.4	23	0.2	1.9	0.5	23
Upper CI for the mean	35	0.2	0.8	8.3	18	0.3	3360	0.6	1.6	13	118	36	3115	18	0.7	40	0.2	8.6	0.5	51
Kurtosis	3.4	12.0	4.5	9.1	-1.3	1.2	-0.5	12.0	-1.5	5.6	-0.1	11.9	-1.2	-1.5	1.0	-1.4		0.0		2.6
Skewness	2.0	3.5	2.1	2.9	-0.3	1.4	0.7	3.5	0.2	2.2	1.0	3.5	0.3	0.5	0.7	-0.1		1.2		1.5

n = 12 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.6: Summary Statistics for Residential Garden Soil from Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	6	32	0.4	2200	21	8	45	8700	7	1600	96	0.75	60	0.5	18	20	23
1st quartile	7600	0.4	11	35	0.4	3400	23	11	98	1130	13	1850	115	0.75	136	0.5	23	23	32
Median	8000	0.4	26	48	0.4	5600	28	22	360	1400	34	2400	160	0.75	360	0.5	30	25	45
3rd quartile	9600	0.4	115	63	1.7	9950	46	49	895	2250	108	2950	190	0.75	1030	2.0	36	29	112
95th	1044	1.0	288	79	2.4	1740	66	65	1460	3260	192	4280	206	2.42	1280	5.4	42	33	146
Maximum	1100	1.2	400	88	2.8	2100	77	73	1700	3700	240	4800	210	2.50	1400	7.0	45	35	150
Mean	8600	0.5	88	51	1.1	7544	36	31	551	1736	70	2567	155	1.12	581	1.8	30	26	69
Geometric mean	8523	0.5	38	49	0.8	5939	33	23	302	1569	38	2422	150	0.97	355	1.1	29	26	56
Sample std. dev.	1179	0.3	118	17	0.8	5560	17	22	523	8495	72	949	39	0.69	468	2.0	8	4	45
CV (std. dev./mean)	15%	53%	142%	35%	82%	78%	50%	74%	101%	52%	110%	39%	27%	65%	85%	117%	29%	18%	69%
Lower CI for the mean	7638	0.3	-8	38	0.4	3011	22	13	125	1044	11	1793	123	0.56	200	0.2	23	22	33
Upper CI for the mean	9562	0.8	185	65	1.8	1207	50	48	977	2429	128	3340	187	1.68	963	3.5	37	30	106
Kurtosis	0.0	4.0	5.9	1.0	-0.5	3.2	2.6	-0.4	1.1	2.1	2.5	2.6	-1.3	0.87	-1.4	4.6	-0.2	0.4	-0.6
Skewness	0.9	2.1	2.3	1.0	0.9	1.7	1.6	0.8	1.2	1.5	1.6	1.6	-0.2	1.64	0.5	2.1	0.2	0.9	0.9

Number of samples n = 9 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.7: Summary Statistics for Gatchell Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	190	0.5	0.2	2.6	24	0.5	730	4	0.2	2.3	0.2	0.5	0.5	8
10th	5	0.2	0.2	1.0	10	0.1	1300	0.5	0.2	4.8	53	0.5	900	5	0.2	2.9	0.2	2.0	0.5	13
1st quartile	6	0.2	0.2	2.0	12	0.1	1850	0.5	0.2	6.6	60	0.5	1300	8	0.3	4.4	0.2	5.2	0.5	16
Median	63	0.2	0.2	4.3	20	0.1	5000	0.7	0.2	13	120	0.5	3200	14	0.7	13	0.3	12	0.5	39
3rd quartile	230	0.2	0.8	15	27	0.3	9000	1.2	0.4	26	335	2.1	3800	26	2.0	23	0.4	23	0.5	46
95th	810	0.2	1.5	31	31	0.6	19000	3.2	0.9	57	1100	4.9	6200	47	3.0	27	1.0	43	2.3	59
Maximum	1300	0.2	2.3	37	33	1.0	30000	4.7	2.2	64	1800	11	8400	91	3.5	41	1.6	49	3.3	78
Mean	194	0.2	0.6	10	19	0.2	6790	1.1	0.4	20	298	1.8	3167	20	1.1	14	0.4	15	0.8	35
Geometric mean	42	0.2	0.4	5.1	17	0.2	4069	0.9	0.3	14	142	1.0	2562	14	0.7	11	0.4	9.4	0.6	30
Sample std. dev.	322	0.0	0.6	11	8	0.2	6970	1.0	0.5	17	429	2.5	1942	20	1.0	9.9	0.3	13	0.7	18
CV (std. dev./mean)	170%	0%	103%	110%	42%	94%	105%	94%	105%	89%	147%	139%	63%	100%	95%	72%	79%	89%	91%	52%
Lower CI for the mean	44	0.2	0.3	5.1	16	0.1	3539	0.6	0.2	12	98	0.7	2261	11	0.6	10	0.3	9.1	0.5	27
Upper CI for the mean	345	0.2	0.8	15	23	0.3	10041	1.6	0.7	27	499	3.0	4072	30	1.6	19	0.6	21	1.1	44
Kurtosis	6.0		2.4	0.6	-1.0	5.2	4.9	6.6	9.9	1.4	6.6	8.6	1.0	6.9	-0.4	0.7	5.7	0.9	7.6	-0.3
Skewness	2.4		1.7	1.3	-0.1	2.2	2.1	2.5	2.9	1.4	2.5	2.7	1.0	2.4	1.0	0.9	2.2	1.2	2.8	0.3

n = 21 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.8: Summary Statistics for Residential Garden Soil from Gatchell

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7200	0.4	2.5	54	0.4	3500	28	8	130	14000	21	2700	170	0.8	120	0.5	22	25	58
1st quartile	8100	0.4	5.0	68	0.4	5100	28	9	140	14000	23	3600	260	0.8	120	0.5	29	25	65
Median	9050	0.4	6.0	78	0.4	6350	28	12	230	15000	69	3900	290	0.8	225	0.8	32	27	81
3rd quartile	1000	1.0	11	120	0.4	1200	35	12	260	16000	88	4300	400	0.8	270	1.0	52	28	170
95th	1000	1.0	12	128	0.4	1275	51	14	395	16000	120	4375	415	0.8	293	1.0	52	28	178
Maximum	1000	1.0	12	130	0.4	1300	56	15	440	16000	130	4400	420	0.8	300	1.0	52	28	180
Mean	8900	0.6	7.1	88	0.4	7717	34	11	238	15000	67	3800	305	0.8	210	0.8	36	27	106
Geometric mean	8828	0.5	6.2	84	0.4	6937	33	11	219	14967	54	3752	292	0.8	197	0.7	35	26	95
Sample std. dev.	1114	0.3	3.3	28	0.0	3541	10	2	103	1000	39	572	85	0.0	72	0.3	12	2	50
CV (std. dev./mean)	14%	52%	52%	35%	0%	50%	33%	22%	47%	7%	64	16%	30%	0%	37%	37%	35%	6%	52%
Lower CI for the mean	7620	0.3	3.2	56	0.4	3646	22	9	120	13850	22	3143	208	0.8	128	0.5	23	25	49
Upper CI for the mean	1018	0.9	10.9	120	0.4	1178	46	14	357	16150	111	4457	402	0.8	292	1.0	50	28	163
Kurtosis	-2.2	-1.9	-1.3	-1.6		-1.6	4.6	0.0	1.9	-3.3	-	1.3	-0.7		-2.3	-3.3	-1.7	-3.3	-1.8
Skewness	-0.3	1.0	0.4	0.6		0.6	2.1	0.3	1.3	0.0	0.4	-1.2	-0.1		-0.2	0.0	0.6	0.0	0.8

n = 6 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.9: Summary Statistics for Lively Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.3	10	0.1	680	0.5	0.2	3.6	23	0.5	990	5	0.2	2.1	0.2	2.0	0.5	10
10th	5	0.2	0.2	1.9	16	0.1	1047	0.5	0.2	8.8	48	0.5	1347	6	0.2	3.0	0.2	3.3	0.5	19
1st quartile	11	0.2	0.2	2.7	20	0.1	1600	0.5	0.2	10	68	0.7	1800	10	0.2	4.5	0.2	6.7	0.5	27
Median	35	0.2	0.2	10	24	0.2	3050	0.5	0.2	15	90	2.4	2850	14	0.5	6.0	0.2	11	0.5	34
3rd quartile	150	0.2	0.2	25	27	0.2	7500	1.1	0.3	26	210	42	4000	19	1.5	19	0.2	24	0.5	41
95th	1057	0.3	0.5	42	33	1.2	15450	2.8	1.0	44	1440	96	7560	56	4.7	83	0.2	49	2.7	110
Maximum	2000	0.3	1.1	50	37	1.6	18000	4.9	1.9	98	2800	260	13000	110	5.7	190	0.3	67	4.6	110
Mean	221	0.2	0.3	14	24	0.3	5554	1.0	0.4	21	335	32	3449	21	1.4	23	0.2	19	0.9	41
Geometric mean	45	0.2	0.2	8.4	23	0.2	3535	0.8	0.3	16	129	6	2793	15	0.6	9.2	0.2	12	0.6	34
Sample std. dev.	479	0.0	0.2	14	6	0.4	5170	1.1	0.4	20	657	60	2697	24	1.7	44	0.0	17	1.0	27
CV (std. dev./mean)	223%	15%	78%	99%	27%	139%	96%	108%	114%	100%	202%	193%	80%	118%	128%	193%	11%	95%	120%	68%
Lower CI for the mean	-24	0.2	0.2	7.4	20	0.1	2909	0.5	0.2	11	-0.9	1.3	2069	8.8	0.5	0.9	0.2	10	0.3	27
Upper CI for the mean	466	0.2	0.4	22	27	0.5	8199	1.6	0.6	31	671	62	4829	33	2.2	46	0.2	28	1.4	55
Kurtosis	11.0	6.0	14.1	0.9	0.4	7.4	0.6	10.3	13.1	12.0	11.5	12.4	8.5	10.3	1.3	12.0	18.0	1.9	11.0	3.2
Skewness	3.2	2.7	3.6	1.3	0.0	2.8	1.3	3.1	3.5	3.2	3.3	3.3	2.6	3.1	1.6	3.3	4.2	1.5	3.3	1.8

n = 18 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.10: Summary Statistics for Residential Garden Soil from North Lively

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	11000	0.4	2.5	60	0.4	7700	28	8	60	17000	28	4200	270	0.75	73	0.5	28	33	76
1st quartile	13000	0.4	2.5	76	0.4	8850	29	8	70	19500	33	4950	285	0.75	77	0.5	43	36	95
Median	14500	0.4	4.8	92	0.4	9950	33	8	101	21000	45	5900	310	0.75	111	0.5	49	39	97
3rd quartile	19500	0.6	8.0	115	0.4	12000	43	10	115	22500	87	6650	330	0.75	135	0.5	57	42	105
95th	21650	1.0	8.7	127	0.7	13950	50	11	120	24300	104	6895	347	1.24	147	0.5	70	45	110
Maximum	22000	1.1	9.0	130	0.8	15000	50	11	120	25000	110	7000	350	1.50	150	0.5	72	46	110
Mean	15875	0.5	5.3	94	0.5	10538	36	9	94	21000	58	5775	309	0.84	109	0.5	50	39	97
Geometric mean	15450	0.5	4.5	92	0.4	10321	35	9	91	20868	51	5686	308	0.82	104	0.5	48	39	97
Sample std. dev.	3756	0.2	2.8	23	0.1	2205	8	1	23	2345	30	981	26	0.25	30	0.0	13	4	10
CV (std. dev./mean)	25%	50%	57%	26%	31%	22%	25%	13%	26%	12%	55%	18%	9%	31%	30%	0%	28%	11%	11%
Lower CI for the mean	12516	0.3	2.8	74	0.3	8566	28	8	73	18903	32	4898	285	0.62	82	0.5	38	35	88
Upper CI for the mean	19234	0.8	7.7	115	0.6	12509	43	10	115	23097	85	6652	332	1.07	135	0.5	61	43	106
Kurtosis	-1.2	2.3	-2.5	-1.1	8.0	0.6	-0.6	0.6	-1.7	-0.1	-1.3	-1.2	-1.0	8.0	-2.3		0.3	-1.1	1.9
Skewness	0.6	1.8	0.1	0.2	2.8	0.9	1.0	1.4	-0.4	0.0	0.7	-0.5	0.1	2.8	0.0		0.3	0.2	-0.9

Number of samples n = 8 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.11: Summary Statistics for All Residential Garden Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5.0	0.1	120	0.5	0.2	2	15	0.5	290	2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.7	7.0	0.1	838	0.5	0.2	5	26	0.5	840	5	0.2	2.1	0.2	1.2	0.5	10
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	8	0.2	4.5	0.2	2.4	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2700	0.5	0.2	9	80	0.5	2150	13	0.5	8.8	0.2	7.4	0.5	27
3rd quartile	82	0.2	0.4	14	23	0.3	5450	0.8	0.4	18	145	1.5	3500	23	1.1	23	0.4	16	0.5	44
95th percentile	620	0.2	1.4	35	33	0.8	19000	2.4	1.9	64	1065	39	6265	88	4.4	54	3.0	43	1.6	89
Maximum	2000	0.4	9.0	60	45	2.0	31000	6.4	4.9	230	2800	260	13000	380	17.0	190	22	67	5.1	300
Mean	135	0.2	0.5	10	18	0.3	5382	0.9	0.5	18	217	7.1	2684	26	1.2	18	0.8	12	0.7	34
Geometric mean	28	0.2	0.3	4.5	16	0.2	2965	0.7	0.3	11	91	1.1	2061	15	0.6	9	0.3	6	0.6	25
Sample std. dev.	319	0.0	0.8	12	8.5	0.3	6309	0.9	0.6	28	435	27	2063	47	2.2	27	2.5	13	0.7	32
CV (std. dev./mean)	237%	11%	179%	125%	48%	116%	118%	107%	135%	157%	201%	383%	77%	183%	181%	146%	298%	111%	100%	95%
Lower CI for the mean	83	0.2	0.3	8	17	0.2	4354	0.7	0.4	13	146	3	2348	18	0.8	14	0.4	10	0.6	29
Upper CI for the mean	187	0.2	0.6	12	19	0.3	6411	1.0	0.6	23	288	11	3020	33	1.6	23	1.2	14	0.8	40
Kurtosis	17.1	54.6	76.3	4.9	0.1	13.7	3.1	17.3	17.7	26.8	17.0	56.3	6.1	40.1	24.4	20.3	47.1	2.5	21.7	30.2
Skewness	3.9	7.1	7.8	2.1	0.6	3.4	1.9	4.0	3.7	4.6	3.9	6.9	2.0	5.8	4.5	3.9	6.5	1.7	4.5	4.3

n = 148

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.6.12: Summary Statistics for All Root Vegetables Collected

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	0.2	5	0.1	120	0.5	0.2	2.6	21	0.5	290	3.4	0.2	0.8	0.2	0.5	0.5	2
10th percentile	9	0.2	0.2	0.8	0.2	5	0.1	296	0.5	0.2	4.6	31	0.5	902	5.0	0.2	1.9	0.2	0.9	0.5	11
1st quartile	14	0.2	0.2	2.8	0.2	8	0.1	1400	0.5	0.2	5.9	38	0.5	1200	6.0	0.2	2.6	0.2	2.0	0.5	14
Median	38	0.2	0.2	7.0	0.2	15	0.1	1700	0.5	0.2	7.2	84	0.5	1400	8.7	0.2	5.3	0.2	7.0	0.5	18
3rd quartile	64	0.2	0.2	17	0.2	19	0.2	2750	0.5	0.2	11	110	1.3	1850	18	0.4	10	0.2	10	0.5	29
95th percentile	100	0.2	0.7	26	0.2	24	0.3	3670	0.8	0.5	19	178	59	2700	107	0.6	26	0.5	22	0.5	50
Maximum	150	0.3	1.9	60	0.2	27	0.5	5600	0.9	1.8	27	210	130	3200	380	1.2	54	3.0	31	0.5	92
Mean	44	0.2	0.3	12	0.2	14	0.2	1969	0.5	0.3	9.0	83	8.7	1531	25	0.3	9.2	0.3	7.5	0.5	23
Geometric mean	31	0.2	0.2	6.2	0.2	13	0.1	1491	0.5	0.2	7.8	69	1.1	1373	12	0.3	5.8	0.2	4.8	0.5	19
Sample std. dev.	34	0.0	0.3	12	0.0	6	0.1	1172	0.1	0.3	5.2	47	24	655	60	0.2	11	0.4	6.5	0.0	16
CV (std. dev./mean)	78%	10%	104%	109%	0%	46%	56%	60%	17%	99%	59%	58%	283%	43%	238%	64%	120%	146%	88%	0%	69%
Lower CI for the mean	33	0.2	0.2	7.7	0.2	12	0.1	1604	0.5	0.2	7.4	68	1.1	1327	6.8	0.2	5.8	0.2	5.5	0.5	18
Upper CI for the mean	55	0.2	0.4	15	0.2	16	0.2	2334	0.6	0.4	11	97	16	1735	44	0.4	13	0.4	10	0.5	28
Kurtosis	0.8	18.8	20.6	5.7		-1.1	3.4	0.8	8.1	22.7	3.7	0.2	14.8	0.2	29.6	11.1	8.1	39.6	3.4		7.5
Skewness	1.0	4.5	4.3	2.1		0.1	1.7	0.6	3.0	4.6	1.8	0.8	3.7	0.6	5.2	2.9	2.7	6.2	1.6		2.3

n = 43

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table A2.6.13: Summary Statistics for All Fruit (tomato, beans, zuccini, etc.) Vegetables Collected

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	0.2	5	0.1	490	0.5	0.2	1.9	15	0.5	310	2	0.2	0.5	0.2	0.7	0.5	4
10th percentile	5	0.2	0.2	0.5	0.2	8	0.1	878	0.5	0.2	3.7	20	0.5	730	5	0.2	1.2	0.2	1.2	0.5	8
1st quartile	5	0.2	0.2	0.8	0.2	11	0.1	1300	0.5	0.2	4.9	33	0.5	1100	8	0.4	4.0	0.2	2.0	0.5	12
Median	6	0.2	0.2	1.6	0.2	16	0.1	1800	0.5	0.2	7.0	51	0.5	1800	12	0.7	8.0	0.2	3.2	0.5	24
3rd quartile	10	0.2	0.2	4.6	0.2	20	0.2	4400	0.6	0.3	10	77	0.5	3200	16	1.5	20	0.3	8.1	0.5	34
95th percentile	26	0.2	0.6	9.9	0.2	27	0.3	6210	1.1	1.5	20	120	17	4265	33	7.8	45	4.1	14	0.5	58
Maximum	300	0.3	0.8	12	0.2	34	0.5	7600	1.2	2.2	98	180	260	5000	370	17	190	22	44	0.5	120
Mean	15	0.2	0.3	3.0	0.2	16	0.1	2727	0.6	0.4	9.3	58	7.1	2108	20	1.7	16	1.1	5.5	0.5	27
Geometric mean	8	0.2	0.2	1.9	0.2	14	0.1	2137	0.6	0.3	7.2	49	0.8	1722	12	0.8	8	0.3	3.6	0.5	21
Sample std. dev.	40	0.0	0.1	2.9	0.0	7	0.1	1887	0.2	0.4	12	35	34	1222	47	2.9	25	3.5	6.2	0.0	20
CV (std. dev./mean)	267%	6%	53%	99%	0%	43%	50%	70%	32%	118%	128%	61%	481%	58%	230%	169%	158%	328%	113%	0%	75%
Lower CI for the mean	5	0.2	0.2	2.3	0.2	14	0.1	2267	0.5	0.3	6.4	50	-1	1810	9	1.0	10	0.2	4.0	0.5	22
Upper CI for the mean	25	0.2	0.3	3.7	0.2	17	0.2	3187	0.6	0.5	12	67	15	2406	32	2.5	22	1.9	7.0	0.5	32
Kurtosis	39.9	68.0	6.4	1.6		-0.2	6.4	-0.3	3.2	8.6	47.8	1.8	46.1	-1.0	46.6	12.6	32.2	24.7	21.4		6.2
Skewness	6.2	8.2	2.7	1.5		0.5	2.1	0.9	2.1	3.0	6.5	1.3	6.6	0.4	6.5	3.3	5.0	4.9	3.8		2.0

n = 68 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.14: Summary Statistics for All Residential Leafy Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	18	0.2	0.2	1.2	5.0	0.1	1200	0.5	0.2	6	41	0.5	1200	4	0.2	3.4	0.2	1.2	0.5	17
10th percentile	49	0.2	0.2	7.5	17	0.2	4540	0.6	0.2	14	120	0.5	2880	14	0.3	7.2	0.2	14	0.5	26
1st quartile	84	0.2	0.3	10	20	0.3	9650	0.7	0.3	20	170	0.7	3400	17	0.4	10	0.2	20	0.5	40
Median	270	0.2	0.6	16	26	0.4	14000	1.3	0.5	26	370	1.7	4400	31	0.9	23	0.6	27	0.6	46
3rd quartile	600	0.2	1.3	30	31	0.7	19000	2.4	1.2	58	885	4.1	6150	48	1.7	50	1.3	41	1.5	78
95th percentile	1660	0.2	2.3	52	39	1.6	24400	5.1	2.6	136	2400	24	9200	73	3.4	93	4.2	50	4.2	110
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	110	6.5	180	5.3	67	5.1	300
Mean	462	0.2	1.0	21	26	0.6	14230	1.8	0.9	45	665	5.0	5084	36	1.3	33	1.0	29	1.3	61
Geometric mean	245	0.2	0.7	16	24	0.4	12034	1.3	0.6	33	403	2.0	4594	30	0.9	22	0.6	25	0.9	51
Sample std. dev.	510	0.0	1.5	14	8.3	0.5	6804	1.5	1.0	44	696	8.5	2421	22	1.2	35	1.3	14	1.2	47
CV (std. dev./mean)	112%	16%	142%	71%	32%	81%	48%	87%	109%	100%	106%	172%	48%	63%	100%	106%	127%	47%	95%	79%
Lower CI for the mean	289	0.2	0.6	16	23	0.4	11930	1.3	0.6	30	430	2.1	4265	29	0.8	21	0.6	25	0.9	45
Upper CI for the mean	634	0.2	1.5	26	29	0.7	16530	2.3	1.3	59	900	7.9	5902	44	1.7	45	1.5	34	1.7	76
Kurtosis	2.5	37.0	23.6	0.8	0.3	2.2	0.2	2.4	6.6	8.5	2.4	6.7	3.1	2.2	7.6	8.1	4.5	0.3	2.9	17.9
Skewness	1.7	6.1	4.5	1.2	0.0	1.6	0.2	1.7	2.4	2.7	1.7	2.7	1.6	1.3	2.4	2.6	2.2	0.5	1.9	3.7

n = 37 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

3. RESIDENTIAL SOIL AND GARDEN VEGETABLE RESULTS

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037482 1st Ave. (front yard)	0-5 cm	15463	13000	< 0.8	< 5	66	< 0.5	< 0.8	4000	34	7	**92**	15000	27	2700	200	< 1.5	**110**	< 1	41	33	29
		15464	7200	< 0.8	5	35	< 0.5	< 0.8	1800	22	7	**87**	12000	28	2200	120	< 1.5	**97**	< 1	13	23	29
	5-10 cm	15465	9100	< 0.8	5	36	< 0.5	< 0.8	3600	25	6	47	12000	16	2600	150	< 1.5	**58**	< 1	28	25	29
		15466	10000	< 0.8	< 5	40	< 0.5	< 0.8	3900	26	6	46	13000	16	2600	160	< 1.5	**58**	< 1	32	27	25
	10-20 cm	15467	8600	< 0.8	6	51	< 0.5	< 0.8	3500	26	9	**130**	14000	36	2700	160	< 1.5	**160**	< 1	34	27	28
		15468	6700	< 0.8	9	69	< 0.5	< 0.8	2500	23	10	**200**	13000	60	2500	150	< 1.5	**210**	< 1	21	22	40
5037483 1st Ave. (back yard)	0-5 cm	15457	13000	< 0.8	< 5	59	< 0.5	< 0.8	4200	30	6	**91**	15000	26	3000	180	< 1.5	**100**	1	38	32	26
		15458	12000	< 0.8	< 5	53	< 0.5	< 0.8	4200	29	7	**87**	15000	28	2900	170	< 1.5	**96**	< 1	38	30	25
	5-10 cm	15459	13000	< 0.8	5	63	< 0.5	< 0.8	4000	34	9	84	18000	28	3700	220	< 1.5	**99**	< 1	38	33	32
		15460	14000	< 0.8	8	63	< 0.5	< 0.8	9400	33	12	**230**	18000	20	3300	230	< 1.5	**260**	< 1	49	33	56
	10-20 cm	15461	16000	< 0.8	< 5	89	< 0.5	< 0.8	4800	41	9	**100**	18000	37	3600	260	< 1.5	**120**	< 1	48	39	36
		15462	14000	< 0.8	< 5	83	< 0.5	< 0.8	4100	36	9	**130**	16000	52	2900	200	< 1.5	**160**	< 1	45	35	36
5037677 1st Ave. (front yard)	0-5 cm	16276	7700	< 0.8	< 5	27	< 0.5	< 0.8	2900	22	5	52	11000	26	2200	120	< 1.5	**65**	1	21	23	31
		16277	7800	< 0.8	5	28	< 0.5	< 0.8	2400	26	8	69	10000	36	2600	130	< 1.5	**100**	< 1	15	24	39
	5-10 cm	16278	7500	< 0.8	7	28	< 0.5	< 0.8	2100	20	7	84	12000	42	2300	120	< 1.5	**99**	1	17	23	37
		16279	6800	< 0.8	8	27	< 0.5	< 0.8	2000	21	9	**140**	12000	38	2200	120	< 1.5	**170**	1	13	22	33
	10-20 cm	16280	8700	< 0.8	< 5	35	< 0.5	< 0.8	3100	25	9	**110**	13000	33	2500	160	< 1.5	**150**	< 1	28	27	33
		16281	7500	< 0.8	< 5	35	< 0.5	< 0.8	2700	23	9	**130**	12000	38	2400	160	< 1.5	**190**	< 1	25	26	43
5037678 1st Ave. (back yard)	0-5 cm	16282	10000	< 0.8	< 5	38	< 0.5	< 0.8	3500	28	7	53	14000	31	2900	160	< 1.5	**70**	< 1	33	30	34
		16283	10000	< 0.8	< 5	38	< 0.5	< 0.8	3500	29	7	56	14000	24	2900	170	< 1.5	**76**	< 1	33	30	34
	5-10 cm	16284	10000	< 0.8	< 5	45	< 0.5	< 0.8	3400	28	10	**110**	15000	53	2800	180	< 1.5	**140**	< 1	33	31	50
		16285	12000	< 0.8	< 5	42	< 0.5	< 0.8	3500	27	10	**110**	18000	43	2800	170	< 1.5	**160**	< 1	33	30	47
	10-20 cm	16286	10000	< 0.8	< 5	46	< 0.5	< 0.8	3200	29	9	**96**	15000	34	2900	170	< 1.5	**130**	< 1	32	32	42
		16287	14000	< 0.8	< 5	46	< 0.5	< 0.8	3300	29	9	**100**	20000	27	2900	190	< 1.5	**120**	< 1	34	32	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit.   NG - no guideline.   All results are in μg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037679 1st Ave. (front yard)	0-5 cm	16288	8700	< 0.8	7	46	< 0.5	< 0.8	4500	26	11	**140**	13000	25	2300	160	< 1.5	**180**	< 1	29	26	34
		16289	12000	< 0.8	7	49	< 0.5	< 0.8	5400	27	12	**150**	16000	22	2500	170	< 1.5	**220**	< 1	33	29	32
	5-10 cm	16290	10000	< 0.8	11	45	< 0.5	< 0.8	4700	26	11	**150**	15000	28	2400	180	< 1.5	**220**	< 1	33	31	30
		16291	11000	< 0.8	9	43	< 0.5	< 0.8	3800	25	6	**94**	14000	12	2000	160	< 1.5	**94**	< 1	33	30	23
	10-20 cm	16292	11000	< 0.8	12	45	< 0.5	< 0.8	3400	23	6	**120**	14000	15	1800	150	< 1.5	**96**	< 1	33	31	22
		16293	11000	< 0.8	9	45	< 0.5	< 0.8	3000	24	6	74	14000	11	2000	170	< 1.5	**57**	< 1	31	30	22
5037680 1st Ave. (back yard)	0-5 cm	16294	15000	< 0.8	< 5	59	< 0.5	< 0.8	8900	29	10	**120**	18000	18	2500	170	< 1.5	**200**	< 1	42	31	29
		16295	12000	< 0.8	< 5	54	< 0.5	< 0.8	6800	30	9	**110**	14000	16	2500	160	< 1.5	**180**	< 1	42	31	28
	5-10 cm	16296	10000	< 0.8	6	37	< 0.5	< 0.8	3300	26	5	59	13000	9	1800	140	< 1.5	**72**	< 1	32	30	21
		16297	8400	< 0.8	6	28	< 0.5	< 0.8	2700	21	5	53	11000	8	1700	100	< 1.5	**70**	< 1	21	25	16
	10-20 cm	16298	8300	< 0.8	8	32	< 0.5	< 0.8	2100	21	5	51	11000	7	1700	110	< 1.5	**48**	< 1	20	25	16
		16299	8800	< 0.8	6	34	< 0.5	< 0.8	2100	21	4	45	12000	7	1700	120	< 1.5	41	< 1	21	25	15
5037681 1st Ave. (front yard)	0-5 cm	16300	6900	< 0.8	6	42	< 0.5	< 0.8	3800	22	7	78	11000	44	1900	170	< 1.5	**97**	< 1	25	24	41
		16301	7000	< 0.8	6	43	< 0.5	< 0.8	3600	22	7	**87**	11000	81	2000	190	< 1.5	**100**	1	25	23	43
	5-10 cm	16302	6500	< 0.8	< 5	28	< 0.5	< 0.8	2500	20	7	67	9800	22	2100	160	< 1.5	**83**	< 1	20	22	26
		16303	6200	< 0.8	< 5	27	< 0.5	< 0.8	2200	19	6	40	9300	13	1900	160	< 1.5	**65**	< 1	19	22	23
	10-20 cm	16304	6500	< 0.8	9	34	< 0.5	< 0.8	2800	22	10	**150**	11000	29	1900	150	< 1.5	**190**	< 1	20	23	28
		16305	6200	< 0.8	6	33	< 0.5	< 0.8	2700	19	9	**110**	10000	25	1900	150	< 1.5	**170**	< 1	16	22	29
5037682 1st Ave. (side yard)	0-5 cm	16306	7800	< 0.8	**21**	67	< 0.5	< 0.8	6500	22	20	**380**	16000	78	1800	240	< 1.5	**390**	1	26	26	77
		16307	8600	< 0.8	**23**	72	< 0.5	0.8	7200	25	20	**370**	16000	85	2000	300	< 1.5	**390**	**2**	33	28	84
	5-10 cm	16308	11000	< 0.8	**28**	78	< 0.5	< 0.8	5500	27	19	**470**	18000	87	1900	250	< 1.5	**370**	**2**	39	30	65
		16309	10000	< 0.8	**29**	80	< 0.5	< 0.8	6200	27	17	**450**	17000	69	1600	310	< 1.5	**350**	< 1	39	30	69
	10-20 cm	16310	10000	1	**20**	75	< 0.5	< 0.8	4500	26	16	**420**	15000	95	1800	280	< 1.5	**340**	1	38	30	59
		16311	10000	< 0.8	**24**	86	< 0.5	< 0.8	5300	26	18	**440**	16000	81	1700	300	< 1.5	**370**	**2**	39	30	61

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037683 1st Ave. (front yard)	0-5 cm	16312	12000	< 0.8	29	68	< 0.5	1.5	9900	39	51	860	23000	76	2900	180	< 1.5	1400	3	39	32	80
		16313	12000	< 0.8	33	74	< 0.5	1.7	9600	40	57	980	24000	87	3100	180	< 1.5	1500	4	38	31	87
	5-10 cm	16314	9700	< 0.8	26	51	< 0.5	0.9	5400	35	25	470	16000	42	2200	160	< 1.5	720	2	33	29	46
		16315	8000	< 0.8	29	44	< 0.5	0.9	4700	39	25	520	14000	44	2000	140	< 1.5	760	2	27	25	46
	10-20 cm	16316	7400	< 0.8	7	35	< 0.5	< 0.8	2900	23	10	190	9900	28	1700	130	< 1.5	230	1	25	24	22
		16317	5200	< 0.8	11	39	< 0.5	< 0.8	2600	23	11	330	9400	34	1400	98	< 1.5	310	1	13	19	25
5037684 1st Ave. (back yard)	0-5 cm	16318	8200	0.8	26	67	< 0.5	1.3	7500	26	42	680	16000	80	2400	230	< 1.5	1200	3	40	25	110
		16319	8600	< 0.8	33	88	< 0.5	1.2	7300	28	36	580	18000	100	2400	250	< 1.5	980	3	39	27	130
	5-10 cm	16320	8500	< 0.8	43	110	< 0.5	< 0.8	5100	25	27	540	17000	110	2000	250	< 1.5	870	2	42	28	120
		16321	9100	0.8	42	120	< 0.5	0.8	6300	28	27	540	18000	110	2200	260	< 1.5	790	2	41	28	130
	10-20 cm	16322	7600	1.1	55	160	< 0.5	1	7600	24	31	650	18000	150	1800	300	< 1.5	1000	2	49	26	170
		16323	8000	1	42	160	< 0.5	0.8	7100	23	26	580	16000	170	1900	280	< 1.5	810	2	50	26	170
5037685 1st Ave. (front yard)	0-5 cm	16324	8900	< 0.8	40	68	< 0.5	1.4	4000	30	40	700	25000	130	2500	200	< 1.5	990	3	29	29	91
		16325	8700	< 0.8	47	68	< 0.5	1.5	4100	32	45	860	26000	130	2500	200	< 1.5	1100	4	30	29	97
	5-10 cm	16326	8500	0.8	53	96	< 0.5	1	2800	28	35	890	23000	160	2200	190	< 1.5	920	4	29	28	82
		16327	6600	< 0.8	46	76	< 0.5	0.9	2300	25	34	840	20000	120	2000	160	< 1.5	920	4	21	23	74
	10-20 cm	16328	8700	1	20	130	< 0.5	< 0.8	2400	24	20	500	17000	140	1900	200	< 1.5	540	3	31	27	68
		16329	9200	1.3	20	97	< 0.5	< 0.8	2400	25	21	500	17000	110	1800	190	< 1.5	570	3	32	29	58
5037686 1st Ave. (back yard)	0-5 cm	16330	12000	< 0.8	47	83	< 0.5	2.1	8400	42	68	1200	30000	150	3500	240	< 1.5	1700	5	38	31	120
		16331	11000	< 0.8	33	84	< 0.5	1.8	8100	38	65	1200	28000	120	2700	240	1.5	1900	5	38	30	100
	5-10 cm	16332	12000	< 0.8	30	76	< 0.5	1	6100	36	36	700	20000	130	2600	230	< 1.5	1100	3	35	30	85
		16333	12000	< 0.8	35	69	< 0.5	< 0.8	5000	33	29	610	20000	65	2500	210	< 1.5	920	2	34	30	63
	10-20 cm	16334	11000	< 0.8	17	64	< 0.5	< 0.8	3700	29	14	360	15000	67	2200	190	< 1.5	390	1	37	28	45
		16335	8900	< 0.8	10	44	< 0.5	< 0.8	3500	22	12	300	14000	36	2000	190	< 1.5	280	< 1	29	26	35

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037667 2nd Ave. (front yard)	0-5 cm	16216	13000	< 0.8	< 5	61	< 0.5	< 0.8	7700	40	7	52	16000	22	4300	280	< 1.5	**67**	< 1	55	37	37
		16217	12000	< 0.8	< 5	45	< 0.5	< 0.8	6800	33	7	50	15000	23	3700	240	< 1.5	**69**	< 1	47	33	36
	5-10 cm	16218	10000	< 0.8	< 5	44	< 0.5	< 0.8	5200	31	7	37	14000	30	3300	240	< 1.5	**54**	< 1	39	32	31
		16219	8100	< 0.8	< 5	36	< 0.5	< 0.8	4500	26	7	49	13000	22	3000	220	< 1.5	**76**	< 1	29	28	27
	10-20 cm	16220	6500	< 0.8	< 5	31	< 0.5	< 0.8	3700	25	5	17	11000	6	2800	200	< 1.5	27	< 1	26	26	18
		16221	5500	< 0.8	< 5	28	< 0.5	< 0.8	3300	23	5	21	10000	13	2600	190	< 1.5	27	< 1	25	25	18
5037668 2nd Ave. (back yard)	0-5 cm	16222	10000	< 0.8	< 5	46	< 0.5	< 0.8	8200	31	7	49	14000	23	3900	230	< 1.5	**70**	< 1	41	31	37
		16223	10000	< 0.8	< 5	46	< 0.5	< 0.8	7900	33	7	50	14000	24	4000	240	< 1.5	**72**	< 1	41	32	38
	5-10 cm	16224	8200	< 0.8	< 5	45	< 0.5	< 0.8	5200	27	6	53	12000	42	3100	170	< 1.5	**74**	< 1	30	27	39
		16225	9000	< 0.8	< 5	44	< 0.5	< 0.8	6600	29	6	48	12000	33	3500	200	< 1.5	**66**	< 1	38	30	37
	10-20 cm	16226	7200	< 0.8	< 5	35	< 0.5	< 0.8	4000	23	6	40	11000	28	2600	170	< 1.5	**55**	< 1	29	26	29
		16227	5900	< 0.8	< 5	38	< 0.5	< 0.8	3400	23	7	53	10000	39	2600	150	< 1.5	**72**	< 1	15	22	39
5037669 2nd Ave. (front yard)	0-5 cm	16228	7600	< 0.8	**24**	62	< 0.5	**1.4**	5800	37	**31**	**510**	19000	**400**	2900	180	< 1.5	**640**	**2**	34	27	130
		16229	8000	< 0.8	**40**	58	< 0.5	**1.5**	6700	29	**50**	**880**	22000	**240**	2500	170	< 1.5	**1300**	**3**	32	27	130
	5-10 cm	16230	9200	< 0.8	**28**	52	< 0.5	0.9	6100	34	**33**	**640**	19000	**180**	2400	170	< 1.5	**830**	**2**	35	29	98
		16231	12000	< 0.8	**25**	80	< 0.5	< 0.8	7500	31	**30**	**650**	18000	**180**	2100	170	< 1.5	**940**	**2**	39	29	110
	10-20 cm	16232	10000	< 0.8	17	67	< 0.5	< 0.8	6400	28	20	**480**	16000	**180**	2000	150	< 1.5	**560**	1	38	27	88
		16233	11000	< 0.8	16	86	< 0.5	< 0.8	7900	27	20	**570**	14000	**220**	1700	140	< 1.5	**710**	**2**	39	27	86
5037670 2nd Ave. (back yard)	0-5 cm	16234	10000	< 0.8	**40**	85	< 0.5	**1.7**	6500	30	**44**	**880**	21000	**250**	2000	160	< 1.5	**1200**	**3**	38	28	150
		16235	9000	0.9	**40**	69	< 0.5	**2.3**	8000	32	**53**	**1100**	23000	**280**	2300	170	< 1.5	**1300**	**4**	35	26	150
	5-10 cm	16236	8800	0.9	**29**	68	< 0.5	< 0.8	3700	21	**26**	**610**	15000	**150**	1400	120	< 1.5	**930**	< 1	25	23	100
		16237	8600	0.8	**34**	58	< 0.5	< 0.8	3400	20	**30**	**670**	16000	**160**	1400	120	< 1.5	**1100**	< 1	21	22	100
	10-20 cm	16238	8800	0.8	**22**	66	< 0.5	< 0.8	4300	19	19	**460**	14000	**140**	1300	120	< 1.5	**660**	< 1	24	22	120
		16239	7300	0.8	**23**	65	< 0.5	< 0.8	3500	17	20	**510**	13000	**130**	1200	100	< 1.5	**710**	< 1	15	19	92

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037671 2nd Ave. (front yard)	0-5 cm	16240	7300	< 0.8	**25**	39	< 0.5	< 0.8	2100	21	**25**	**550**	16000	100	1800	120	< 1.5	**650**	< 1	16	22	61
		16241	7400	< 0.8	**26**	42	< 0.5	< 0.8	2700	22	**27**	**550**	18000	120	1600	120	< 1.5	**670**	**2**	18	23	68
	5-10 cm	16242	8900	< 0.8	**23**	51	< 0.5	< 0.8	2700	20	20	**540**	16000	110	1600	120	< 1.5	**630**	**2**	23	25	53
		16243	9000	< 0.8	**22**	67	< 0.5	< 0.8	3000	21	20	**520**	16000	**130**	1700	130	< 1.5	**610**	**2**	24	26	61
	10-20 cm	16244	8500	< 0.8	**18**	60	< 0.5	< 0.8	2500	18	16	**400**	15000	110	1500	99	< 1.5	**450**	**2**	24	24	42
		16245	10000	< 0.8	**20**	70	< 0.5	< 0.8	3600	22	16	**510**	17000	110	1700	110	< 1.5	**470**	**2**	35	27	48
5037672 2nd Ave. (back yard)	0-5 cm	16246	8300	< 0.8	**18**	99	< 0.5	< 0.8	5700	20	16	**370**	14000	**150**	1700	170	< 1.5	**480**	1	28	23	98
		16247	8100	< 0.8	**20**	68	< 0.5	**1.2**	5900	21	**25**	**490**	16000	**130**	1900	150	< 1.5	**640**	**2**	29	22	120
	5-10 cm	16248	7800	< 0.8	**21**	65	< 0.5	**1.1**	5100	21	**28**	**450**	15000	100	2000	150	< 1.5	**740**	**2**	27	23	110
		16249	8200	< 0.8	**20**	89	< 0.5	< 0.8	4300	20	19	**440**	15000	**140**	1700	180	< 1.5	**560**	1	29	23	100
	10-20 cm	16250	8700	< 0.8	16	75	< 0.5	< 0.8	4400	22	16	**360**	15000	84	1900	170	< 1.5	**470**	1	29	25	83
		16251	8900	0.8	**18**	120	< 0.5	< 0.8	6500	22	19	**480**	15000	**190**	1800	200	< 1.5	**520**	**2**	39	25	120
5037675 2nd Ave. (front yard)	0-5 cm	16264	8700	< 0.8	15	56	< 0.5	1	11000	25	**38**	**470**	19000	120	4000	230	< 1.5	**860**	< 1	32	28	89
		16265	9200	< 0.8	14	47	< 0.5	< 0.8	8500	26	**27**	**370**	17000	95	3500	200	< 1.5	**630**	< 1	29	30	69
	5-10 cm	16266	9800	< 0.8	11	41	< 0.5	< 0.8	5200	24	13	**200**	16000	47	2100	180	< 1.5	**340**	< 1	28	32	31
		16267	10000	< 0.8	5	42	< 0.5	< 0.8	3500	23	7	69	14000	19	2100	180	< 1.5	**130**	< 1	26	29	27
	10-20 cm	16268	10000	< 0.8	7	41	< 0.5	< 0.8	3300	22	8	**120**	14000	21	1900	170	< 1.5	**160**	< 1	28	28	26
		16269	12000	< 0.8	6	47	< 0.5	< 0.8	3800	26	7	69	15000	15	2100	190	< 1.5	**120**	< 1	40	29	24
5037676 2nd Ave. (back yard)	0-5 cm	16270	11000	< 0.8	**20**	68	< 0.5	**1.2**	11000	29	**34**	**470**	18000	75	2900	230	< 1.5	**840**	1	40	30	80
		16271	11000	< 0.8	15	73	< 0.5	1	9700	27	**32**	**420**	17000	95	3100	230	< 1.5	**760**	< 1	40	29	75
	5-10 cm	16272	13000	< 0.8	10	59	< 0.5	< 0.8	7500	31	11	**150**	16000	17	2400	230	< 1.5	**240**	< 1	44	37	31
		16273	11000	< 0.8	10	45	< 0.5	< 0.8	6300	26	11	**140**	15000	16	2300	200	< 1.5	**250**	< 1	38	31	28
	10-20 cm	16274	11000	< 0.8	10	64	< 0.5	< 0.8	4600	25	12	**220**	16000	90	2100	190	< 1.5	**280**	< 1	38	28	66
		16275	7900	< 0.8	13	54	< 0.5	< 0.8	3600	21	12	**250**	14000	77	2000	170	< 1.5	**290**	**2**	23	25	54

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037479 3rd Ave. (front yard)	0-5 cm	15448	11000	< 0.8	6	48	< 0.5	< 0.8	5100	26	7	62	15000	22	3000	150	< 1.5	**81**	< 1	32	27	32
		15449	12000	< 0.8	5	54	< 0.5	< 0.8	4400	28	7	61	15000	28	3000	150	< 1.5	**77**	< 1	32	28	25
	5-10 cm	15450	13000	< 0.8	5	45	< 0.5	< 0.8	3100	27	7	45	16000	11	2500	150	< 1.5	**55**	< 1	31	30	19
	5-10 cm	15451	11000	< 0.8	6	40	< 0.5	< 0.8	2600	25	7	45	14000	10	2300	140	< 1.5	**57**	< 1	25	27	19
5037480 3rd Ave. (back yard)	0-5 cm	15446	16000	< 0.8	6	97	< 0.5	< 0.8	6100	37	10	74	19000	53	4300	240	< 1.5	**100**	< 1	40	35	35
	0-5 cm	15447	16000	< 0.8	7	100	< 0.5	< 0.8	6600	38	9	84	18000	21	4300	250	< 1.5	**110**	< 1	42	35	36
5037657 3rd Ave. (front yard)	0-5 cm	16156	15000	< 0.8	9	73	< 0.5	< 0.8	5300	34	15	**190**	18000	35	3200	180	< 1.5	**290**	< 1	40	31	47
		16157	12000	< 0.8	13	70	< 0.5	< 0.8	6800	31	**24**	**390**	18000	63	3000	200	< 1.5	**520**	1	41	29	86
	5-10 cm	16158	15000	< 0.8	**19**	89	< 0.5	< 0.8	4800	34	15	**330**	17000	78	2500	150	< 1.5	**410**	1	40	29	50
		16159	12000	< 0.8	**26**	85	< 0.5	< 0.8	4800	27	17	**450**	18000	**130**	2200	160	< 1.5	**470**	**2**	38	27	75
	10-20 cm	16160	11000	< 0.8	**20**	72	< 0.5	< 0.8	4000	28	16	**380**	17000	110	2200	150	< 1.5	**390**	1	34	27	54
		16161	11000	0.9	**25**	86	< 0.5	< 0.8	3700	26	20	**490**	17000	**180**	1900	150	< 1.5	**490**	**2**	34	25	73
5037658 3rd Ave. (back yard)	0-5 cm	16162	11000	**1.1**	**28**	130	< 0.5	0.9	4600	30	**27**	**540**	21000	**180**	2400	170	< 1.5	**590**	**2**	38	27	120
		16163	8700	< 0.8	16	67	< 0.5	< 0.8	2700	26	18	**380**	18000	92	2000	150	< 1.5	**400**	**2**	22	26	83
	5-10 cm	16164	8300	**1.9**	**32**	200	< 0.5	0.8	4300	23	**24**	**710**	19000	**270**	1400	160	< 1.5	**700**	**3**	32	23	**190**
		16165	9500	**1.1**	11	140	< 0.5	< 0.8	2900	26	20	**720**	20000	**170**	1500	170	< 1.5	**510**	**3**	34	26	120
	10-20 cm	16166	7000	**1.6**	**28**	150	< 0.5	< 0.8	2200	19	20	**590**	15000	**220**	1300	150	< 1.5	**550**	**2**	21	25	150
		16167	7300	**2.2**	**28**	180	< 0.5	0.9	3200	21	**22**	**730**	17000	**280**	1500	170	< 1.5	**640**	< 1	26	31	**210**

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037659 3rd Ave. (front yard)	0-5 cm	16168	9300	< 0.8	5	32	< 0.5	< 0.8	2900	31	7	61	14000	31	2400	190	< 1.5	**66**	< 1	26	27	32
		16169	8200	< 0.8	9	23	< 0.5	< 0.8	2000	23	6	60	13000	32	2100	150	< 1.5	**70**	< 1	18	24	23
	5-10 cm	16170	6900	< 0.8	< 5	22	< 0.5	< 0.8	1500	21	5	53	11000	39	1600	110	< 1.5	**53**	< 1	16	21	25
		16171	7800	< 0.8	< 5	24	< 0.5	< 0.8	1600	23	4	63	12000	35	1900	130	< 1.5	**45**	< 1	15	24	27
	10-20 cm	16172	6700	< 0.8	< 5	22	< 0.5	< 0.8	1500	21	6	80	8500	35	1600	110	< 1.5	**83**	< 1	15	22	22
		16173	8200	< 0.8	< 5	36	< 0.5	< 0.8	1900	24	5	83	9500	65	1900	140	< 1.5	**71**	< 1	23	26	31
5037660 3rd Ave. (back yard)	0-5 cm	16174	13000	< 0.8	5	53	< 0.5	< 0.8	3700	36	8	71	16000	23	2600	230	< 1.5	**80**	< 1	40	32	34
		16175	12000	< 0.8	7	50	< 0.5	< 0.8	3800	36	8	60	16000	21	2800	240	< 1.5	**72**	< 1	39	32	32
	5-10 cm	16176	13000	< 0.8	< 5	50	< 0.5	< 0.8	3100	34	7	45	16000	17	2900	220	< 1.5	**50**	< 1	37	32	27
		16177	13000	< 0.8	< 5	49	< 0.5	< 0.8	3300	33	7	36	16000	16	2700	210	< 1.5	**45**	< 1	39	33	24
	10-20 cm	16178	10000	< 0.8	< 5	38	< 0.5	< 0.8	2500	29	7	46	15000	25	2900	190	< 1.5	**53**	< 1	31	29	24
		16179	9600	< 0.8	< 5	34	< 0.5	< 0.8	2700	28	7	50	15000	66	3200	180	< 1.5	**59**	< 1	28	29	25
5037661 3rd Ave. (front yard)	0-5 cm	16180	7300	< 0.8	< 5	31	< 0.5	< 0.8	2900	20	6	51	10000	30	2000	130	< 1.5	**72**	< 1	25	22	30
		16181	7000	< 0.8	< 5	26	< 0.5	< 0.8	2700	20	6	70	11000	29	2000	130	< 1.5	**84**	< 1	22	22	26
	5-10 cm	16182	6200	< 0.8	< 5	22	< 0.5	< 0.8	2200	19	5	42	9600	26	1600	130	< 1.5	**59**	< 1	20	21	22
		16183	6000	< 0.8	< 5	23	< 0.5	< 0.8	1900	18	5	59	9200	32	1600	120	< 1.5	**74**	< 1	20	20	24
	10-20 cm	16184	6000	< 0.8	< 5	24	< 0.5	< 0.8	1600	19	6	**88**	9500	30	1400	120	< 1.5	**77**	< 1	18	20	23
		16185	6200	< 0.8	< 5	26	< 0.5	< 0.8	2000	18	5	62	9600	34	1600	110	< 1.5	**73**	< 1	19	20	26
5037662 3rd Ave. (back yard)	0-5 cm	16186	8200	< 0.8	< 5	52	< 0.5	< 0.8	2800	23	7	**92**	12000	61	2000	130	< 1.5	**110**	< 1	25	23	46
		16187	5400	**2.9**	< 5	32	< 0.5	< 0.8	1800	18	6	**86**	9400	59	1700	110	< 1.5	**100**	< 1	12	18	40
	5-10 cm	16188	6600	< 0.8	< 5	34	< 0.5	< 0.8	1900	19	6	72	9900	63	1700	120	< 1.5	**96**	< 1	18	21	45
		16189	6600	< 0.8	< 5	36	< 0.5	< 0.8	2200	21	7	76	9800	86	1800	130	< 1.5	**100**	< 1	20	21	50
	10-20 cm	16190	7200	< 0.8	< 5	39	< 0.5	< 0.8	2400	21	6	66	9900	67	1700	130	< 1.5	**97**	< 1	25	22	46
		16191	8900	< 0.8	< 5	53	< 0.5	< 0.8	2900	24	6	70	11000	99	1900	160	< 1.5	**94**	1	32	25	65

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037663 3rd Ave. (front yard)	0-5 cm	16192	9800	< 0.8	**35**	64	< 0.5	**1.1**	5500	31	**45**	**1000**	26000	120	2100	160	< 1.5	**1200**	**3**	39	29	110
		16193	11000	< 0.8	**29**	67	< 0.5	0.9	6200	32	**34**	**720**	23000	100	2200	170	< 1.5	**890**	**3**	38	29	89
	5-10 cm	16194	9000	**1.4**	**35**	68	< 0.5	< 0.8	3500	25	**36**	**760**	21000	110	1600	150	< 1.5	**1100**	**3**	35	25	86
		16195	9200	< 0.8	**36**	70	< 0.5	0.9	4700	27	**38**	**820**	21000	110	1800	170	< 1.5	**1200**	**3**	36	27	89
	10-20 cm	16196	8900	< 0.8	12	55	< 0.5	< 0.8	3000	21	17	**390**	13000	82	1400	160	< 1.5	**520**	1	28	24	59
		16197	6900	< 0.8	11	68	< 0.5	< 0.8	3100	19	17	**430**	14000	85	1300	150	< 1.5	**540**	**2**	28	22	59
5037664 3rd Ave. (back yard)	0-5 cm	16198	6400	1	**18**	61	< 0.5	< 0.8	2500	23	20	**400**	17000	**150**	1900	130	< 1.5	**440**	**3**	20	21	88
		16199	6200	1	**18**	64	< 0.5	0.8	2100	23	19	**390**	17000	**210**	1800	130	< 1.5	**450**	**2**	18	22	90
	5-10 cm	16200	5800	0.9	**22**	72	< 0.5	< 0.8	1900	20	**24**	**570**	16000	**140**	1500	150	< 1.5	**620**	**2**	15	19	85
		16201	5900	**1.2**	**28**	91	< 0.5	< 0.8	1900	21	**30**	**640**	18000	**250**	1600	170	< 1.5	**670**	**3**	19	20	110
	10-20 cm	16202	5800	1	15	98	< 0.5	< 0.8	1700	18	19	**450**	12000	**170**	1400	170	< 1.5	**590**	1	17	18	140
		16203	6800	1	16	130	< 0.5	< 0.8	2600	19	20	**500**	14000	**170**	1600	200	< 1.5	**680**	1	25	21	150
5037665 3rd Ave. (front yard)	0-5 cm	16204	7300	< 0.8	6	30	< 0.5	< 0.8	2900	23	7	75	13000	32	2700	140	< 1.5	**88**	< 1	17	26	33
		16205	8300	< 0.8	6	29	< 0.5	< 0.8	2500	24	8	**100**	14000	27	2300	120	< 1.5	**120**	< 1	19	27	32
	5-10 cm	16206	8600	< 0.8	7	25	< 0.5	< 0.8	1800	22	7	83	14000	20	2100	120	< 1.5	**88**	< 1	17	29	24
		16207	7500	0.9	6	24	< 0.5	< 0.8	1700	21	7	**97**	12000	22	2000	130	< 1.5	**120**	< 1	17	24	22
	10-20 cm	16208	8500	< 0.8	9	30	< 0.5	< 0.8	1800	23	9	**150**	14000	35	2100	150	< 1.5	**150**	< 1	20	25	29
		16209	7500	< 0.8	14	32	< 0.5	< 0.8	1800	22	10	**170**	14000	76	2200	150	< 1.5	**150**	< 1	17	24	28
5037666 3rd Ave. (back yard)	0-5 cm	16210	7000	< 0.8	< 5	27	< 0.5	< 0.8	2600	27	5	45	11000	13	2500	160	< 1.5	**57**	< 1	16	22	31
		16211	7700	< 0.8	7	31	< 0.5	< 0.8	3000	28	6	58	12000	18	2700	170	< 1.5	**73**	< 1	19	25	33
	5-10 cm	16212	8000	< 0.8	5	25	< 0.5	< 0.8	2100	21	5	53	11000	13	2200	130	< 1.5	**52**	< 1	20	25	31
		16213	13000	< 0.8	< 5	52	< 0.5	< 0.8	4300	31	6	49	14000	12	2800	190	< 1.5	**49**	< 1	42	33	25
	10-20 cm	16214	11000	< 0.8	7	40	< 0.5	< 0.8	3500	30	9	**120**	17000	40	3500	190	< 1.5	**110**	< 1	34	32	41
		16215	10000	< 0.8	7	42	< 0.5	< 0.8	3700	28	8	**120**	16000	39	3200	190	< 1.5	**110**	< 1	34	30	33

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037476 4th Ave. (front yard)	0-5 cm	15434	8100	< 0.8	6	30	< 0.5	< 0.8	6400	25	6	72	12000	30	2900	150	< 1.5	**78**	**2**	32	26	26
		15435	7200	< 0.8	6	27	< 0.5	< 0.8	5600	24	6	67	11000	28	2700	140	< 1.5	**78**	< 1	27	25	28
	5-10 cm	15436	6700	< 0.8	< 5	24	< 0.5	< 0.8	2900	24	5	57	12000	32	2100	150	< 1.5	**47**	< 1	22	26	19
		15437	6400	< 0.8	< 5	22	< 0.5	< 0.8	2700	21	6	77	11000	35	2000	130	< 1.5	**87**	< 1	19	24	19
	10-20 cm	15438	6300	< 0.8	< 5	24	< 0.5	< 0.8	2200	20	5	46	11000	23	1900	150	< 1.5	**44**	< 1	17	23	15
		15439	6200	< 0.8	< 5	25	< 0.5	< 0.8	2200	21	9	**98**	11000	26	2200	140	< 1.5	**140**	< 1	15	23	19
5037477 4th Ave. (back yard)	0-5 cm	15428	8000	< 0.8	6	40	< 0.5	< 0.8	7000	24	8	**99**	13000	42	3300	150	< 1.5	**130**	< 1	26	26	52
		15429	8600	< 0.8	6	44	< 0.5	< 0.8	9000	25	8	**94**	12000	45	4000	170	< 1.5	**120**	< 1	31	25	55
	5-10 cm	15430	9600	< 0.8	6	38	< 0.5	< 0.8	4400	27	8	**87**	14000	30	2800	160	< 1.5	**120**	< 1	29	29	39
		15431	9900	< 0.8	8	39	< 0.5	< 0.8	4700	28	9	**110**	15000	24	2800	160	< 1.5	**150**	< 1	31	29	39
	10-20 cm	15432	7600	< 0.8	14	38	< 0.5	< 0.8	3200	25	10	**190**	13000	44	2100	130	< 1.5	**<u>210</u>**	1	25	25	35
		15433	6500	< 0.8	5	36	< 0.5	< 0.8	2400	19	10	**190**	13000	34	2100	110	< 1.5	**<u>230</u>**	< 1	15	21	33
5037651 4th Ave. (front yard)	0-5 cm	16120	9800	< 0.8	< 5	23	< 0.5	< 0.8	3500	25	3	14	12000	6	1800	160	< 1.5	25	< 1	36	27	17
		16121	11000	< 0.8	< 5	28	< 0.5	< 0.8	4000	27	4	20	13000	7	2000	180	< 1.5	31	< 1	40	29	19
	5-10 cm	16122	11000	< 0.8	< 5	36	< 0.5	< 0.8	4000	27	6	65	13000	16	2300	179	< 1.5	**74**	< 1	38	29	23
		16123	11000	< 0.8	< 5	37	< 0.5	< 0.8	3800	29	5	47	13000	11	2000	190	< 1.5	**57**	< 1	42	30	22
	10-20 cm	16124	11000	< 0.8	9	53	< 0.5	< 0.8	4500	31	11	**170**	17000	49	3200	190	< 1.5	**<u>180</u>**	< 1	39	31	31
		16125	12000	< 0.8	10	62	< 0.5	< 0.8	4200	33	12	**220**	18000	38	2900	190	< 1.5	**<u>200</u>**	< 1	41	33	31
5037652 4th Ave. (back yard)	0-5 cm	16126	7900	0.9	6	27	< 0.5	< 0.8	2400	21	6	69	11000	17	1800	130	< 1.5	**81**	< 1	18	23	31
		16127	7000	< 0.8	< 5	20	< 0.5	< 0.8	1400	18	4	23	9500	6	1500	100	< 1.5	32	< 1	10	20	19
	5-10 cm	16128	7300	< 0.8	7	31	< 0.5	< 0.8	1900	21	9	**120**	11000	24	1900	130	< 1.5	**140**	< 1	13	22	36
		16129	7600	**1.3**	< 5	23	< 0.5	< 0.8	1800	20	5	28	11000	6	1700	130	< 1.5	40	< 1	14	23	23
	10-20 cm	16130	11000	< 0.8	**<u>23</u>**	55	< 0.5	< 0.8	4300	30	18	**<u>380</u>**	17000	43	2000	200	< 1.5	**<u>520</u>**	< 1	39	30	74
		16131	9500	< 0.8	< 5	31	< 0.5	< 0.8	3200	27	5	44	13000	7	2200	170	< 1.5	**54**	< 1	35	26	18

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037653 4th Ave. (front yard)	0-5 cm	16132	13000	< 0.8	< 5	53	< 0.5	< 0.8	5100	37	7	44	17000	17	3700	210	< 1.5	**56**	< 1	40	33	38
		16133	13000	< 0.8	< 5	54	< 0.5	< 0.8	4600	36	7	35	16000	17	3500	210	< 1.5	**48**	< 1	42	36	33
	5-10 cm	16134	12000	< 0.8	< 5	39	< 0.5	< 0.8	4000	34	7	27	16000	11	3600	200	< 1.5	40	< 1	38	34	24
		16135	12000	< 0.8	< 5	44	< 0.5	< 0.8	3600	33	6	40	14000	17	2800	190	< 1.5	**46**	< 1	38	32	24
	10-20 cm	16136	10000	< 0.8	< 5	40	< 0.5	< 0.8	3300	28	6	52	13000	23	2300	190	< 1.5	**68**	< 1	35	29	22
		16137	8400	< 0.8	< 5	34	< 0.5	< 0.8	3200	25	6	77	12000	29	2200	170	< 1.5	**92**	< 1	32	27	24
5037654 4th Ave. (back yard)	0-5 cm	16138	10000	< 0.8	< 5	68	< 0.5	< 0.8	6200	26	4	53	9500	21	2200	260	< 1.5	**60**	< 1	44	23	56
		16139	11000	< 0.8	< 5	78	< 0.5	< 0.8	7100	27	5	51	9800	18	2300	320	< 1.5	**65**	< 1	47	25	67
	5-10 cm	16140	9500	< 0.8	< 5	58	< 0.5	< 0.8	5800	24	4	36	8600	16	1800	270	< 1.5	**45**	< 1	44	23	44
		16141	11000	< 0.8	5	65	< 0.5	< 0.8	6500	26	3	30	8600	11	2200	300	< 1.5	40	< 1	47	23	44
	10-20 cm	16142	8000	< 0.8	< 5	41	< 0.5	< 0.8	3700	24	5	46	11000	21	1900	210	< 1.5	**61**	< 1	33	25	35
		16143	8800	< 0.8	< 5	52	< 0.5	< 0.8	5100	23	5	41	10000	29	2000	240	< 1.5	**50**	< 1	39	25	41
5037655 4th Ave. (front yard)	0-5 cm	16150	8600	< 0.8	< 5	42	< 0.5	< 0.8	4300	25	7	55	11000	28	2600	150	< 1.5	**74**	< 1	33	24	28
		16151	9100	< 0.8	< 5	45	< 0.5	< 0.8	4400	26	6	55	11000	27	2500	150	< 1.5	**72**	< 1	34	25	30
	5-10 cm	16152	8500	< 0.8	< 5	40	< 0.5	< 0.8	3400	23	6	50	10000	21	2200	130	< 1.5	**68**	< 1	33	24	22
		16153	8200	< 0.8	< 5	32	< 0.5	< 0.8	3400	20	5	44	10000	20	2100	120	< 1.5	**73**	< 1	33	22	20
	10-20 cm	16154	8500	< 0.8	< 5	31	< 0.5	< 0.8	3300	20	4	32	10000	15	2000	120	< 1.5	**52**	< 1	32	21	17
		16155	8900	< 0.8	< 5	36	< 0.5	< 0.8	3500	21	5	42	11000	19	2100	130	< 1.5	**72**	< 1	32	23	22
5037656 4th Ave. (back yard)	0-5 cm	16144	9100	< 0.8	< 5	42	< 0.5	< 0.8	4500	26	6	60	12000	33	2500	160	< 1.5	**82**	< 1	35	26	32
		16145	10000	< 0.8	6	55	< 0.5	< 0.8	5500	27	8	80	12000	38	2700	170	< 1.5	**110**	< 1	37	27	40
	5-10 cm	16146	7500	< 0.8	< 5	32	< 0.5	< 0.8	3100	23	5	56	11000	26	2000	140	< 1.5	**74**	< 1	29	24	27
		16147	7400	< 0.8	< 5	34	< 0.5	< 0.8	3300	23	6	78	11000	27	2000	140	< 1.5	**97**	< 1	28	23	30
	10-20 cm	16148	4900	< 0.8	< 5	23	< 0.5	< 0.8	2000	16	5	56	8500	26	1800	100	< 1.5	**67**	< 1	10	18	31
		16149	5700	< 0.8	13	42	< 0.5	< 0.8	2800	19	10	**170**	11000	42	2000	110	< 1.5	**170**	< 1	10	19	38

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037649 5th Ave. (front yard)	0-5 cm	16108	8200	< 0.8	6	36	< 0.5	< 0.8	3000	26	6	76	12000	18	2300	150	< 1.5	**96**	< 1	30	26	25
		16109	7300	< 0.8	7	29	< 0.5	< 0.8	3100	26	7	**91**	12000	24	2200	150	< 1.5	**110**	< 1	30	26	25
	5-10 cm	16110	9200	< 0.8	12	41	< 0.5	< 0.8	3200	28	11	**210**	14000	29	2200	160	< 1.5	**250**	< 1	33	28	31
		16111	8000	< 0.8	12	35	< 0.5	< 0.8	3300	24	12	**230**	14000	25	2100	150	< 1.5	**270**	< 1	32	26	30
	10-20 cm	16112	9400	< 0.8	**20**	49	< 0.5	< 0.8	3800	26	15	**310**	16000	45	2100	160	< 1.5	**370**	< 1	33	27	40
		16113	9900	< 0.8	16	48	< 0.5	< 0.8	3600	26	13	**260**	15000	33	2000	170	< 1.5	**330**	< 1	35	27	38
5037650 5th Ave. (back yard)	0-5 cm	16114	11000	< 0.8	13	63	< 0.5	< 0.8	5300	30	15	**230**	16000	40	2600	170	< 1.5	**300**	< 1	40	29	45
		16115	8800	< 0.8	12	57	< 0.5	< 0.8	4400	24	15	**300**	16000	47	2300	160	< 1.5	**300**	< 1	33	26	48
	5-10 cm	16116	11000	< 0.8	17	67	< 0.5	< 0.8	4100	29	16	**340**	18000	37	2200	190	< 1.5	**420**	< 1	43	30	39
		16117	11000	< 0.8	15	60	< 0.5	< 0.8	5100	28	15	**310**	17000	39	2300	190	< 1.5	**350**	< 1	43	31	39
	10-20 cm	16118	11000	< 0.8	17	63	< 0.5	< 0.8	3700	27	12	**360**	16000	36	1800	160	< 1.5	**350**	< 1	38	30	42
		16119	11000	< 0.8	**18**	66	< 0.5	< 0.8	4200	27	12	**340**	17000	30	2000	160	< 1.5	**290**	< 1	40	31	31
5037740 Albert St. (front yard)	0-5 cm	18757	6700	< 0.8	6	34	< 0.5	< 0.8	2600	20	9	**110**	12000	20	2300	130	< 1.5	**140**	< 1	18	22	44
		18758	7700	< 0.8	7	41	< 0.5	< 0.8	2900	23	10	**120**	13000	25	2400	140	< 1.5	**150**	< 1	24	24	46
	5-10 cm	18759	7000	< 0.8	10	42	< 0.5	< 0.8	2500	21	12	**240**	15000	38	2100	140	< 1.5	**260**	< 1	21	24	51
		18760	7000	< 0.8	9	38	< 0.5	< 0.8	2500	21	11	**200**	14000	25	2100	130	< 1.5	**210**	< 1	21	23	39
	10-15 cm	18761	8200	**2**	17	70	< 0.5	< 0.8	3400	26	18	**360**	18000	62	2500	190	< 1.5	**480**	1	29	27	63
		18762	7500	< 0.8	16	52	< 0.5	< 0.8	3800	24	20	**360**	17000	50	2800	160	< 1.5	**450**	1	24	25	49
5037741 Albert St. (back yard)	0-5 cm	18763	8300	< 0.8	12	33	< 0.5	< 0.8	5700	22	**23**	**270**	14000	28	2000	140	< 1.5	**550**	< 1	25	23	42
		18764	7300	< 0.8	12	33	< 0.5	< 0.8	6000	20	**23**	**280**	13000	30	1900	140	< 1.5	**550**	< 1	21	22	50
	5-10 cm	18765	9400	< 0.8	10	45	< 0.5	< 0.8	6100	29	14	**170**	16000	21	3300	210	< 1.5	**300**	< 1	23	29	37
		18766	7900	< 0.8	11	36	< 0.5	< 0.8	5400	23	18	**240**	13000	28	2200	150	< 1.5	**420**	< 1	23	25	46
	10-15 cm	18767	11000	< 0.8	**18**	57	< 0.5	< 0.8	6600	33	17	**280**	20000	34	3200	220	< 1.5	**320**	1	31	31	39
		18768	14000	< 0.8	12	72	< 0.5	< 0.8	4500	37	14	**190**	19000	37	3400	230	< 1.5	**240**	< 1	43	37	43

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037499 Allan St. (front yard)	0-5 cm	15631	8300	**1.7**	10	52	< 0.5	1	4400	58	14	**220**	15000	62	2300	180	< 1.5	**260**	< 1	33	27	74
		15632	7200	< 0.8	9	47	< 0.5	< 0.8	3900	45	14	**190**	14000	52	2200	160	< 1.5	**250**	< 1	28	25	68
	5-10 cm	15633	8200	< 0.8	10	49	< 0.5	1	4400	50	18	**240**	15000	51	2300	170	< 1.5	**370**	< 1	30	27	67
		15634	9000	< 0.8	10	52	< 0.5	1	4800	57	14	**240**	15000	40	2300	180	< 1.5	**280**	< 1	35	28	76
	10-20 cm	15635	10000	< 0.8	10	58	< 0.5	< 0.8	5900	35	17	**240**	15000	29	2200	210	< 1.5	**420**	< 1	43	30	56
		15636	8900	< 0.8	9	51	< 0.5	< 0.8	5300	33	15	**210**	14000	32	2400	190	< 1.5	**370**	< 1	39	27	50
5037500 Allan St. (back yard)	0-5 cm	15637	9800	< 0.8	15	140	< 0.5	0.9	9100	34	18	**290**	16000	**250**	3000	250	< 1.5	**460**	< 1	46	29	**250**
		15638	10000	< 0.8	15	120	< 0.5	1	9200	36	19	**330**	17000	**200**	3300	260	< 1.5	**460**	< 1	48	30	**230**
	5-10 cm	15639	12000	1	15	140	< 0.5	**1.1**	8300	37	19	**330**	18000	**240**	3100	280	< 1.5	**480**	< 1	49	31	**260**
		15640	9200	< 0.8	14	100	< 0.5	< 0.8	6300	32	19	**310**	16000	**160**	2600	220	< 1.5	**490**	< 1	42	28	**210**
	10-20 cm	15641	8200	< 0.8	9	79	< 0.5	< 0.8	5100	26	14	**240**	14000	71	2300	190	< 1.5	**390**	< 1	38	26	140
		15642	8300	< 0.8	8	76	< 0.5	< 0.8	4500	28	13	**240**	14000	60	2400	200	< 1.5	**330**	< 1	36	27	100
5037502 Allan St. (back yard)	0-5 cm	15648	7000	< 0.8	9	55	< 0.5	< 0.8	5900	23	16	**260**	13000	42	2900	140	< 1.5	**340**	< 1	22	22	97
		15649	6400	< 0.8	6	47	< 0.5	< 0.8	4600	22	15	**260**	12000	32	2400	130	< 1.5	**330**	1	19	20	72
	5-10 cm	15650	6800	< 0.8	7	36	< 0.5	< 0.8	4300	19	11	**250**	12000	23	2100	100	< 1.5	**270**	< 1	17	21	51
		15651	6600	< 0.8	< 5	40	< 0.5	< 0.8	4400	20	13	**290**	12000	32	2000	99	< 1.5	**300**	1	18	20	58
	10-20 cm	15652	7500	< 0.8	8	55	< 0.5	< 0.8	4400	22	15	**240**	14000	33	2400	160	< 1.5	**330**	< 1	18	22	65
		15653	6700	< 0.8	7	51	< 0.5	< 0.8	4600	22	14	**210**	13000	31	2700	150	< 1.5	**350**	< 1	15	20	59

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037713 Amanda (front yard)	0-5 cm	16492	7500	< 0.8	< 5	36	< 0.5	< 0.8	4700	27	7	65	11000	15	2500	150	< 1.5	**91**	< 1	26	25	35
		16493	9400	< 0.8	< 5	44	< 0.5	< 0.8	5300	29	8	63	12000	17	2700	180	< 1.5	**95**	< 1	40	29	34
	5-10 cm	16494	9300	< 0.8	< 5	40	< 0.5	< 0.8	5600	29	6	72	12000	16	2600	170	< 1.5	**84**	< 1	38	30	29
		16495	10000	< 0.8	< 5	47	< 0.5	< 0.8	6600	31	7	59	13000	16	3100	190	< 1.5	**79**	< 1	41	31	34
	10-20 cm	16496	9800	< 0.8	< 5	45	< 0.5	< 0.8	5100	28	7	**95**	12000	20	2500	160	< 1.5	**110**	< 1	39	29	32
		16497	11000	< 0.8	< 5	50	< 0.5	< 0.8	5300	32	6	63	13000	15	2700	170	< 1.5	**78**	< 1	40	31	28
5037714 Amanda (back yard)	0-5 cm	16498	11000	< 0.8	< 5	54	< 0.5	< 0.8	5400	34	8	53	15000	16	3300	200	< 1.5	**80**	< 1	41	34	49
		16499	9900	< 0.8	< 5	39	< 0.5	< 0.8	4600	31	7	49	14000	14	3100	190	< 1.5	**66**	< 1	28	30	45
	5-10 cm	16500	9800	< 0.8	< 5	31	< 0.5	< 0.8	3600	30	7	42	14000	12	3100	160	< 1.5	**53**	< 1	24	29	28
		16501	9300	< 0.8	< 5	31	< 0.5	< 0.8	2600	29	7	36	14000	10	3100	170	< 1.5	42	< 1	14	27	24
	10-20 cm	16502	8800	< 0.8	< 5	31	< 0.5	< 0.8	3300	26	6	43	13000	14	2700	150	< 1.5	**59**	< 1	24	27	22
		16503	7500	< 0.8	< 5	29	< 0.5	< 0.8	2900	23	6	46	11000	12	2400	120	< 1.5	**65**	< 1	19	24	21
5037719 Aubrey Ave. (front yard)	0-5 cm	16528	11000	< 0.8	< 5	39	< 0.5	< 0.8	3000	38	5	49	13000	14	2300	170	< 1.5	**55**	< 1	31	28	30
		16529	9900	< 0.8	< 5	39	< 0.5	< 0.8	2800	37	5	53	12000	14	2300	160	< 1.5	**57**	< 1	26	26	34
	5-10 cm	16530	14000	< 0.8	8	38	< 0.5	< 0.8	3400	30	5	33	14000	10	2600	160	< 1.5	**45**	< 1	28	28	29
		16531	12000	< 0.8	< 5	38	< 0.5	< 0.8	3100	31	5	38	14000	10	2200	180	< 1.5	**120**	< 1	33	29	37
	10-20 cm	16532	14000	< 0.8	< 5	50	< 0.5	< 0.8	4100	33	5	26	15000	8	2400	210	< 1.5	42	< 1	45	32	24
		16533	13000	< 0.8	< 5	47	< 0.5	< 0.8	3800	30	5	27	14000	9	2300	210	< 1.5	**44**	< 1	44	32	24
5037720 Aubrey Ave. (back yard)	0-5 cm	16534	14000	< 0.8	< 5	70	< 0.5	< 0.8	5500	37	8	73	16000	11	3300	210	< 1.5	**89**	< 1	40	38	42
		16535	15000	< 0.8	< 5	78	< 0.5	< 0.8	5200	39	8	64	16000	10	3400	200	< 1.5	**73**	< 1	41	39	39
	5-10 cm	16536	14000	< 0.8	< 5	65	< 0.5	< 0.8	5200	36	8	68	16000	11	3200	210	< 1.5	**78**	< 1	39	38	38
		16537	15000	< 0.8	< 5	70	< 0.5	< 0.8	3800	36	8	51	17000	8	3200	200	< 1.5	**63**	< 1	40	37	32
	10-20 cm	16538	13000	< 0.8	< 5	64	< 0.5	< 0.8	4300	35	8	**94**	14000	9	3000	210	< 1.5	**95**	< 1	37	37	36
		16539	11000	< 0.8	< 5	59	< 0.5	< 0.8	2900	33	9	**100**	13000	10	2900	190	< 1.5	**120**	< 1	26	30	29

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037715 Balsam St. (front yard)	0-5 cm	16504	7100	< 0.8	**20**	47	< 0.5	**1.3**	8600	27	**41**	**710**	18000	86	2500	130	< 1.5	**1100**	**3**	25	21	71
		16505	8200	0.9	**21**	58	< 0.5	**1.8**	11000	33	**51**	**800**	21000	120	3400	170	< 1.5	**1200**	**3**	30	25	100
	5-10 cm	16506	7400	0.8	**19**	46	< 0.5	< 0.8	3800	21	18	**440**	14000	71	1800	120	< 1.5	**550**	**2**	21	21	37
		16507	8300	< 0.8	**21**	50	< 0.5	< 0.8	3900	24	20	**430**	15000	66	2000	130	< 1.5	**590**	**2**	21	22	41
	10-20 cm	16508	6800	< 0.8	10	36	< 0.5	< 0.8	2800	18	13	**330**	10000	63	1400	93	< 1.5	**380**	1	17	19	29
		16509	7000	< 0.8	12	46	< 0.5	< 0.8	2800	20	14	**360**	12000	90	1600	110	< 1.5	**420**	**2**	16	19	31
5037716 Balsam St. (back yard)	0-5 cm	16510	6700	< 0.8	12	51	< 0.5	1	8400	26	**24**	**380**	14000	110	2500	140	< 1.5	**560**	**2**	24	21	83
		16511	7000	< 0.8	15	48	< 0.5	< 0.8	7100	24	21	**410**	13000	66	2300	130	< 1.5	**530**	**2**	25	21	63
	5-10 cm	16512	6600	< 0.8	**18**	47	< 0.5	< 0.8	6000	22	20	**410**	13000	85	2000	120	< 1.5	**550**	**2**	20	20	59
		16513	6800	< 0.8	**18**	77	< 0.5	< 0.8	4100	22	15	**340**	12000	110	1900	120	< 1.5	**440**	**2**	22	21	79
	10-20 cm	16514	7700	< 0.8	**18**	49	< 0.5	< 0.8	5500	23	13	**320**	13000	87	2000	130	< 1.5	**360**	**4**	26	22	50
		16515	9100	< 0.8	12	52	< 0.5	< 0.8	4400	24	11	**270**	12000	86	2000	150	< 1.5	**280**	< 1	37	24	35
5037717 Balsam St. (front yard)	0-5 cm	16516	11000	**1.3**	**39**	78	< 0.5	**2.4**	15000	48	**74**	**1200**	33000	120	2900	210	< 1.5	**1700**	**4**	46	31	120
		16517	9900	< 0.8	**27**	81	< 0.5	**2.7**	14000	53	**57**	**900**	26000	120	2900	210	< 1.5	**1300**	**3**	43	30	140
	5-10 cm	16518	9600	< 0.8	**23**	39	< 0.5	< 0.8	5600	27	20	**520**	17000	76	2100	140	< 1.5	**650**	**2**	34	28	46
		16519	10000	< 0.8	**28**	53	< 0.5	0.8	12000	32	**31**	**730**	21000	91	2300	150	< 1.5	**900**	**2**	37	29	66
	10-20 cm	16520	8100	< 0.8	11	25	< 0.5	< 0.8	2500	21	7	**190**	11000	31	1800	110	< 1.5	**210**	< 1	22	24	21
		16521	8300	< 0.8	12	25	< 0.5	< 0.8	2500	22	9	**260**	12000	36	1800	100	< 1.5	**270**	1	20	24	25
5037718 Balsam St. (back yard)	0-5 cm	16522	8200	**1.2**	**19**	77	< 0.5	**1.9**	15000	46	**51**	**690**	21000	**140**	3800	190	< 1.5	**1100**	**2**	34	25	130
		16523	8100	< 0.8	**24**	63	< 0.5	**1.6**	9700	41	**51**	**730**	22000	120	2600	180	< 1.5	**1100**	**2**	29	26	120
	5-10 cm	16524	9700	< 0.8	**28**	75	< 0.5	**1.1**	7900	32	**46**	**760**	21000	**130**	2100	200	< 1.5	**1100**	**3**	31	27	120
		16525	8000	< 0.8	**23**	59	< 0.5	< 0.8	4100	25	20	**420**	15000	88	1900	160	< 1.5	**580**	**2**	24	25	64
	10-20 cm	16526	7100	< 0.8	**21**	58	< 0.5	< 0.8	3400	23	16	**370**	12000	110	1800	160	< 1.5	**500**	**2**	16	21	73
		16527	8200	< 0.8	13	50	< 0.5	< 0.8	3100	21	12	**280**	12000	97	1600	140	< 1.5	**330**	**2**	22	23	44
Table F (results in bold)			NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)			NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037742 Bryce St. (front yard)	0-5 cm	18769	9200	< 0.8	12	41	< 0.5	< 0.8	4800	27	14	**200**	15000	31	3200	160	< 1.5	**260**	< 1	31	29	79
		18770	9400	< 0.8	10	39	< 0.5	< 0.8	3800	26	11	**150**	15000	27	2700	170	< 1.5	**200**	< 1	34	29	38
	5-10 cm	18771	10500	< 0.8	16	47	< 0.5	< 0.8	3900	28	15	**260**	17000	27	2800	170	< 1.5	**340**	< 1	34	31	53
		18772	10000	< 0.8	11	46	< 0.5	< 0.8	4300	29	13	**180**	15000	24	2900	170	< 1.5	**250**	< 1	37	31	36
	10-20 cm	18773	8000	< 0.8	13	34	< 0.5	< 0.8	2800	22	13	**230**	15000	24	2200	120	< 1.5	**280**	**2**	24	27	34
		18774	7000	< 0.8	11	31	< 0.5	< 0.8	2300	21	12	**220**	14000	25	2200	120	< 1.5	**260**	1	17	25	34
5037743 Bryce St. (back yard)	0-5 cm	18775	6400	< 0.8	12	58	< 0.5	< 0.8	4400	21	14	**260**	13000	62	2500	190	< 1.5	**290**	1	24	22	74
		18776	6000	0.9	12	55	< 0.5	< 0.8	3600	18	14	**270**	13000	52	2000	180	< 1.5	**300**	1	20	22	78
	5-10 cm	18777	5300	< 0.8	15	67	< 0.5	< 0.8	3200	16	13	**290**	13000	66	2000	150	< 1.5	**290**	1	16	18	64
		18778	5800	< 0.8	13	50	< 0.5	< 0.8	3600	18	15	**290**	13000	59	2100	170	< 1.5	**340**	1	22	22	64
	10-20 cm	18779	7000	< 0.8	16	64	< 0.5	< 0.8	3600	19	14	**350**	14000	74	2000	190	< 1.5	**340**	**2**	26	24	68
		18780	6900	< 0.8	15	56	< 0.5	< 0.8	3600	18	13	**340**	14000	46	2000	170	< 1.5	**300**	1	26	24	57
5037504 Caruso St. (front yard)	0-5 cm	15659	9400	< 0.8	9	64	< 0.5	1	9000	32	21	**280**	16000	45	3600	190	< 1.5	**430**	< 1	35	28	70
		15660	9200	< 0.8	8	65	< 0.5	**1.1**	9400	31	**24**	**320**	17000	54	4000	200	< 1.5	**480**	< 1	34	28	80
	5-10 cm	15661	8400	< 0.8	7	45	< 0.5	< 0.8	5100	26	11	**130**	13000	14	2700	160	< 1.5	**230**	< 1	30	26	29
		15662	7600	< 0.8	7	42	< 0.5	< 0.8	4200	25	9	**120**	12000	11	2600	150	< 1.5	**200**	< 1	25	24	31
	10-20 cm	15663	7200	< 0.8	5	39	< 0.5	< 0.8	3100	24	7	**96**	12000	7	2500	140	< 1.5	**130**	< 1	23	24	20
		15664	7600	< 0.8	6	49	< 0.5	< 0.8	3300	27	7	**92**	12000	8	2800	150	< 1.5	**120**	< 1	23	25	26
5037505 Caruso St. (back yard)	0-5 cm	15665	10000	< 0.8	10	74	< 0.5	< 0.8	8000	34	21	**310**	18000	32	4100	200	< 1.5	**440**	< 1	33	30	68
		15666	10000	< 0.8	10	72	< 0.5	< 0.8	7700	33	19	**260**	16000	28	4000	190	< 1.5	**400**	< 1	34	29	63
	5-10 cm	15667	11000	< 0.8	12	67	< 0.5	< 0.8	7200	33	15	**210**	17000	21	3500	200	< 1.5	**340**	< 1	36	31	47
		15668	14000	< 0.8	12	86	< 0.5	< 0.8	7200	37	13	**190**	18000	25	4000	230	< 1.5	**300**	< 1	46	35	56

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037507 Caruso St. (front yard)	0-5 cm	15675	14000	< 0.8	8	73	< 0.5	< 0.8	6200	37	9	**96**	15000	15	3100	230	< 1.5	**140**	< 1	46	34	36
		15676	13000	< 0.8	6	73	< 0.5	< 0.8	6100	35	8	84	14000	14	3000	220	< 1.5	**120**	< 1	45	32	40
	5-10 cm	15677	12000	1	8	56	< 0.5	< 0.8	4700	34	13	**220**	16000	22	2600	200	< 1.5	**240**	< 1	42	31	41
		15678	11000	< 0.8	10	45	< 0.5	< 0.8	4100	31	12	**180**	15000	16	2300	190	< 1.5	**230**	< 1	32	29	37
	10-20 cm	15679	13000	< 0.8	13	67	< 0.5	< 0.8	3800	36	17	**360**	16000	23	2600	160	< 1.5	**380**	< 1	30	29	45
		15680	15000	0.9	16	83	< 0.5	< 0.8	4500	42	18	**400**	18000	29	2900	180	< 1.5	**410**	1	35	32	54
5037508 Caruso St. (back yard)	0-5 cm	15681	9400	< 0.8	< 5	48	< 0.5	< 0.8	4500	30	7	66	12000	15	2700	170	< 1.5	**83**	< 1	34	26	39
		15682	10000	< 0.8	< 5	51	< 0.5	< 0.8	4400	30	7	66	13000	13	2600	180	< 1.5	**89**	< 1	36	27	31
	5-10 cm	15683	10000	< 0.8	< 5	41	< 0.5	< 0.8	3200	32	7	65	14000	10	2800	150	< 1.5	**86**	< 1	30	30	30
		15684	9600	< 0.8	< 5	39	< 0.5	< 0.8	3100	28	5	48	12000	9	2500	130	< 1.5	**56**	< 1	29	27	26
	10-20 cm	15685	11000	< 0.8	8	72	< 0.5	< 0.8	3500	45	12	**180**	16000	37	3300	190	< 1.5	**200**	< 1	28	30	67
		15686	11000	< 0.8	7	65	< 0.5	< 0.8	3300	44	11	**140**	16000	29	3200	170	< 1.5	**170**	< 1	28	31	56
5037721 Caruso St. (back yard)	0-5 cm	16540	6800	< 0.8	< 5	31	< 0.5	< 0.8	1700	19	4	58	8500	14	1600	89	< 1.5	**57**	< 1	17	21	21
		16541	7100	< 0.8	7	39	< 0.5	< 0.8	3200	23	7	**100**	9900	34	2100	120	< 1.5	**110**	< 1	20	21	51
	5-10 cm	16542	6800	< 0.8	6	38	< 0.5	< 0.8	3300	22	7	**97**	9400	32	2100	120	< 1.5	**100**	< 1	20	21	51
		16543	8100	< 0.8	< 5	33	< 0.5	< 0.8	3000	23	5	57	10000	13	1800	100	< 1.5	**61**	< 1	24	24	23
	10-20 cm	16544	8100	< 0.8	< 5	30	< 0.5	< 0.8	2600	22	5	67	10000	12	1800	100	< 1.5	**54**	< 1	23	24	33
		16545	8100	< 0.8	5	39	< 0.5	< 0.8	2500	22	6	76	10000	22	1700	110	< 1.5	**76**	< 1	27	24	27

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037722 Caruso St. (front yard)	0-5 cm	16546	9000	< 0.8	< 5	40	< 0.5	< 0.8	3700	30	9	**91**	13000	24	2600	180	< 1.5	**140**	< 1	27	25	46
		16547	7700	< 0.8	< 5	40	< 0.5	< 0.8	3100	27	9	**94**	12000	28	2600	170	< 1.5	**120**	< 1	15	23	49
	5-10 cm	16548	7900	< 0.8	< 5	35	< 0.5	< 0.8	2700	24	10	**98**	12000	22	2300	140	< 1.5	**170**	< 1	15	21	34
		16549	7800	< 0.8	< 5	32	< 0.5	< 0.8	2800	24	8	69	12000	17	2200	160	< 1.5	**120**	< 1	19	24	31
	10-20 cm	16550	9300	< 0.8	6	41	< 0.5	< 0.8	3800	29	11	**110**	13000	21	2700	170	< 1.5	**190**	< 1	26	25	36
		16551	10000	< 0.8	7	48	< 0.5	< 0.8	3200	31	12	**130**	14000	23	3000	190	< 1.5	**190**	< 1	22	27	40
5037723 Caruso St. (back yard)	0-5 cm	16552	9300	< 0.8	< 5	52	< 0.5	< 0.8	4500	40	11	**120**	13000	36	2700	190	< 1.5	**190**	< 1	26	26	53
		16553	10000	< 0.8	5	56	< 0.5	< 0.8	5300	38	10	**140**	14000	36	2700	190	< 1.5	**190**	< 1	31	28	54
	5-10 cm	16554	12000	< 0.8	6	61	< 0.5	< 0.8	5700	36	10	**120**	14000	33	2800	200	< 1.5	**190**	< 1	42	30	47
		16555	12000	< 0.8	5	55	< 0.5	< 0.8	5900	32	10	**120**	15000	30	2600	190	< 1.5	**180**	< 1	39	31	46
	10-20 cm	16556	14000	< 0.8	7	71	< 0.5	< 0.8	5900	38	12	**160**	16000	26	2900	210	< 1.5	**250**	< 1	45	33	45
		16557	16000	< 0.8	6	76	< 0.5	< 0.8	6400	36	12	**140**	16000	30	3000	210	< 1.5	**240**	< 1	47	33	49
5037724 Caruso St. (front yard)	0-5 cm	16558	9600	< 0.8	5	43	< 0.5	< 0.8	5500	26	9	**120**	13000	27	2200	150	< 1.5	**160**	1	37	28	38
		16559	8900	< 0.8	5	42	< 0.5	< 0.8	5300	26	8	**110**	13000	24	2000	150	< 1.5	**140**	1	35	28	39
	5-10 cm	16560	9000	< 0.8	11	30	< 0.5	< 0.8	3400	25	9	**150**	14000	18	1900	130	< 1.5	**160**	1	29	28	24
		16561	8100	< 0.8	12	27	< 0.5	< 0.8	3200	23	8	**120**	13000	13	1800	120	< 1.5	**130**	1	23	26	22
	10-20 cm	16562	8100	< 0.8	< 5	30	< 0.5	< 0.8	2800	22	6	78	12000	9	1700	120	< 1.5	**100**	1	22	25	22
		16563	8900	< 0.8	7	33	< 0.5	< 0.8	2700	24	8	**100**	12000	10	1800	130	< 1.5	**140**	**2**	25	27	22
5037725 Caruso St. (back yard)	0-5 cm	16564	7700	< 0.8	**26**	90	< 0.5	**1.9**	5700	34	**39**	**740**	25000	**200**	3100	200	< 1.5	**910**	**5**	26	26	140
		16565	9200	< 0.8	**33**	93	< 0.5	**1.5**	5700	35	**42**	**790**	26000	**160**	3200	210	**2.9**	**910**	**5**	36	30	120
	5-10 cm	16566	10000	< 0.8	**20**	81	< 0.5	**1.2**	5100	34	**35**	**600**	22000	77	3200	230	< 1.5	**900**	**3**	36	32	110
		16567	10000	< 0.8	12	87	< 0.5	< 0.8	4700	31	**22**	**380**	18000	39	2800	230	< 1.5	**580**	1	36	31	75
	10-20 cm	16568	9500	< 0.8	7	67	< 0.5	< 0.8	4500	29	12	**200**	15000	29	2800	200	< 1.5	**340**	< 1	32	30	54
		16569	9500	< 0.8	8	55	< 0.5	< 0.8	4000	26	11	**190**	15000	20	2300	210	< 1.5	**290**	< 1	32	30	42

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037726 Caruso St. (front yard)	0-5 cm	16570	7800	< 0.8	12	33	< 0.5	< 0.8	4200	21	13	**280**	13000	52	1700	120	< 1.5	**280**	1	26	25	74
		16571	10000	< 0.8	9	41	< 0.5	< 0.8	4000	26	11	**240**	13000	22	1800	140	< 1.5	**230**	1	35	28	46
	5-10 cm	16572	9800	< 0.8	9	34	< 0.5	< 0.8	3800	23	9	**230**	13000	18	1700	130	< 1.5	**220**	1	32	27	47
		16573	11000	< 0.8	7	37	< 0.5	< 0.8	3400	24	9	**210**	13000	14	1700	130	< 1.5	**200**	1	33	28	34
	10-20 cm	16574	8400	< 0.8	8	32	< 0.5	< 0.8	3000	22	9	**250**	13000	19	1600	130	< 1.5	**190**	1	28	26	38
		16575	11000	< 0.8	7	50	< 0.5	< 0.8	3600	27	9	**240**	14000	22	2000	160	< 1.5	**180**	< 1	34	29	37
5037727 Caruso St. (back yard)	0-5 cm	16576	10000	< 0.8	< 5	51	< 0.5	< 0.8	3700	29	9	51	11000	14	2100	150	< 1.5	**82**	< 1	37	27	45
		16577	7600	< 0.8	< 5	49	< 0.5	< 0.8	3200	22	9	43	8600	9	2000	88	< 1.5	**68**	< 1	16	21	37
	5-10 cm	16578	7300	< 0.8	< 5	38	< 0.5	< 0.8	1600	22	10	58	7600	15	1600	87	< 1.5	**91**	< 1	14	20	43
		16579	7000	< 0.8	< 5	36	< 0.5	< 0.8	1600	21	9	50	7400	11	1600	84	< 1.5	**83**	< 1	13	20	39
	10-20 cm	16580	8100	0.8	9	68	< 0.5	< 0.8	2700	25	18	**250**	11000	74	2200	160	< 1.5	**320**	< 1	21	23	100
		16581	8400	**2.2**	10	110	< 0.5	< 0.8	3800	27	20	**310**	13000	100	2500	290	< 1.5	**380**	< 1	28	24	**170**
5037728 Caruso St. (front yard)	0-5 cm	16582	8100	< 0.8	5	45	< 0.5	< 0.8	2900	25	7	77	12000	26	2500	150	< 1.5	**92**	< 1	16	24	36
		16583	8200	< 0.8	5	47	< 0.5	< 0.8	3300	27	7	75	13000	21	2600	160	< 1.5	**97**	< 1	20	26	35
	5-10 cm	16584	10000	< 0.8	11	87	< 0.5	< 0.8	4800	36	13	**180**	18000	46	3600	280	< 1.5	**240**	< 1	28	31	74
		16585	8900	< 0.8	9	64	< 0.5	< 0.8	2800	32	11	**130**	16000	31	3200	230	< 1.5	**170**	< 1	18	27	50
	10-20 cm	16586	12000	< 0.8	14	100	< 0.5	< 0.8	5300	41	18	**280**	21000	55	4400	300	< 1.5	**380**	1	33	35	76
		16587	11000	< 0.8	13	92	< 0.5	< 0.8	4000	40	16	**230**	21000	49	4200	290	< 1.5	**300**	< 1	31	33	62
5037729 Caruso St. (back yard)	0-5 cm	16588	6800	< 0.8	5	42	< 0.5	< 0.8	3000	22	6	**86**	10000	30	2200	120	< 1.5	**100**	1	15	20	53
		16589	7300	< 0.8	< 5	33	< 0.5	< 0.8	2600	22	5	47	11000	16	2100	120	< 1.5	**67**	< 1	16	21	44
	5-10 cm	16590	7600	< 0.8	5	33	< 0.5	< 0.8	2500	25	6	60	12000	18	2100	140	< 1.5	**86**	< 1	16	23	39
		16591	8000	0.8	5	44	< 0.5	< 0.8	2600	23	8	**98**	13000	23	2200	150	< 1.5	**130**	< 1	19	24	48
	10-20 cm	16592	9900	< 0.8	**19**	130	< 0.5	0.9	5000	34	**23**	**480**	20000	85	2900	300	< 1.5	**610**	**2**	37	30	**200**
		16593	17000	0.9	**19**	150	< 0.5	< 0.8	7300	43	20	**410**	22000	70	3500	310	< 1.5	**500**	**2**	56	39	120

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037730 Caruso St. (front yard)	0-5 cm	16594	11000	< 0.8	6	45	< 0.5	< 0.8	4000	31	5	47	13000	13	2500	180	< 1.5	**56**	< 1	39	29	26
		16595	11000	< 0.8	6	43	< 0.5	< 0.8	4100	29	6	64	14000	15	2600	180	< 1.5	**73**	< 1	38	28	28
	5-10 cm	16596	11000	< 0.8	< 5	42	< 0.5	< 0.8	3900	28	5	30	14000	8	2600	160	< 1.5	**45**	< 1	41	30	18
		16597	11000	< 0.8	< 5	39	< 0.5	< 0.8	3600	28	5	34	13000	8	2500	170	< 1.5	**47**	< 1	38	29	19
	10-20 cm	16598	7100	< 0.8	< 5	26	< 0.5	< 0.8	2400	24	5	26	11000	5	2500	140	< 1.5	31	< 1	25	26	18
		16599	7600	< 0.8	< 5	29	< 0.5	< 0.8	2400	23	5	32	11000	7	2600	140	< 1.5	43	< 1	25	25	17
5037731 Caruso St. (back yard)	0-5 cm	16600	6500	< 0.8	6	42	< 0.5	< 0.8	9500	21	5	47	8900	8	2900	180	< 1.5	**48**	1	35	20	26
		16601	6400	< 0.8	6	48	< 0.5	< 0.8	9900	20	5	52	8600	9	2900	200	< 1.5	**54**	**2**	36	20	26
	5-10 cm	16602	6200	< 0.8	6	33	< 0.5	< 0.8	4900	22	5	35	10000	6	2600	140	< 1.5	40	1	26	22	17
		16603	6800	**5.3**	5	36	< 0.5	< 0.8	6900	23	5	39	10000	7	2800	170	< 1.5	43	1	31	23	29
	10-20 cm	16604	6300	< 0.8	< 5	24	< 0.5	< 0.8	2400	25	5	24	11000	5	2500	130	< 1.5	31	1	20	23	14
		16605	6400	< 0.8	< 5	23	< 0.5	< 0.8	2500	23	5	26	11000	6	2500	130	< 1.5	31	< 1	20	23	14
5037732 Caruso St. (front yard)	0-5 cm	16606	9500	< 0.8	14	65	< 0.5	< 0.8	6800	32	15	**140**	16000	24	3200	200	1.5	**260**	**2**	32	32	64
		16607	9300	< 0.8	13	69	< 0.5	< 0.8	6400	34	14	**140**	15000	22	3400	230	1.7	**250**	**2**	31	31	62
	5-10 cm	16608	9500	< 0.8	17	73	< 0.5	< 0.8	7700	31	14	**160**	16000	19	3100	190	1.7	**270**	1	33	30	53
		16609	13000	< 0.8	13	78	< 0.5	< 0.8	6200	36	14	**160**	19000	20	3900	220	1.8	**230**	1	36	34	45
	10-20 cm	16610	18000	< 0.8	9	91	< 0.5	< 0.8	5100	42	10	**110**	19000	12	4200	240	< 1.5	**160**	< 1	52	41	39
		16611	17000	< 0.8	11	96	< 0.5	< 0.8	4500	44	10	**140**	19000	12	4500	250	< 1.5	**180**	< 1	51	39	35
5037733 Caruso St. (back yard)	0-5 cm	16612	17000	< 0.8	9	94	< 0.5	< 0.8	6600	44	11	**190**	18000	27	4300	270	< 1.5	**190**	1	47	38	52
		16613	20000	< 0.8	8	130	< 0.5	< 0.8	7400	52	14	**210**	22000	34	5100	310	< 1.5	**250**	1	50	44	62
	5-10 cm	16614	17000	< 0.8	14	110	< 0.5	< 0.8	6400	44	16	**320**	21000	40	4300	260	< 1.5	**370**	1	49	40	63
		16615	21000	< 0.8	12	140	< 0.5	< 0.8	7000	52	16	**310**	23000	39	4900	300	< 1.5	**350**	**2**	51	44	65
	10-20 cm	16616	18000	< 0.8	14	120	< 0.5	< 0.8	6500	45	14	**300**	21000	43	3900	250	< 1.5	**320**	**2**	50	39	55
		16617	19000	< 0.8	10	120	< 0.5	< 0.8	7300	44	14	**270**	21000	27	3700	290	< 1.5	**320**	**2**	51	41	61

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037705 Concession St. Side	0-5 cm	16444	7700	< 0.8	10	46	< 0.5	**1.1**	7700	69	12	**160**	14000	75	4200	160	< 1.5	**190**	**2**	27	26	74
		16445	7100	< 0.8	16	39	< 0.5	< 0.8	5200	44	11	**170**	13000	73	2900	140	< 1.5	**210**	**2**	23	26	63
	5-10 cm	16446	7700	< 0.8	16	37	< 0.5	< 0.8	2700	25	11	**200**	13000	70	1900	150	< 1.5	**250**	**2**	24	27	58
		16447	8000	< 0.8	16	36	< 0.5	< 0.8	3300	27	11	**200**	14000	73	2100	150	< 1.5	**260**	**2**	26	29	54
	10-20 cm	16448	7400	< 0.8	11	33	< 0.5	< 0.8	2400	25	7	**130**	12000	52	1900	140	< 1.5	**150**	**2**	23	26	35
		16449	7700	< 0.8	11	36	< 0.5	< 0.8	2600	25	8	**140**	13000	87	1900	140	< 1.5	**170**	**2**	24	27	38
5037706 Concession St. Side	0-5 cm	16450	8200	< 0.8	**19**	50	< 0.5	**1.3**	7500	54	12	**170**	13000	60	3200	210	1.6	**220**	**2**	27	26	71
		16451	7900	< 0.8	**18**	49	< 0.5	**1.3**	7100	59	12	**190**	14000	69	3600	200	< 1.5	**220**	**2**	26	26	68
	5-10 cm	16452	7500	< 0.8	**28**	49	< 0.5	< 0.8	3200	27	14	**250**	13000	72	1900	190	< 1.5	**320**	**2**	22	27	62
		16453	8300	< 0.8	**27**	49	< 0.5	< 0.8	3400	25	15	**270**	14000	81	1900	180	< 1.5	**360**	**3**	26	27	64
	10-20 cm	16454	9800	< 0.8	**19**	58	< 0.5	< 0.8	4300	32	10	**190**	14000	53	2300	190	< 1.5	**240**	**2**	39	31	47
		16455	8700	< 0.8	**21**	46	< 0.5	< 0.8	3500	27	13	**230**	15000	65	2000	170	< 1.5	**290**	**2**	28	28	55
5037707 Concession St. (front yard)	0-5 cm	16456	9300	< 0.8	11	56	< 0.5	< 0.8	4700	29	12	**180**	13000	35	2200	170	< 1.5	**230**	**2**	36	27	48
		16457	9900	< 0.8	12	55	< 0.5	< 0.8	5300	30	13	**230**	14000	36	2400	180	< 1.5	**280**	**2**	37	28	44
	5-10 cm	16458	11000	< 0.8	**23**	63	< 0.5	< 0.8	5900	31	**24**	**430**	18000	57	2300	190	< 1.5	**580**	**3**	38	30	55
		16459	11000	0.9	**26**	66	< 0.5	< 0.8	6800	31	**22**	**460**	18000	49	2300	190	< 1.5	**620**	**3**	41	30	52
	10-20 cm	16460	5800	< 0.8	15	44	< 0.5	< 0.8	3100	17	21	**410**	13000	53	1800	110	< 1.5	**610**	1	14	18	58
		16461	6500	< 0.8	17	37	< 0.5	< 0.8	3000	20	12	**260**	13000	35	1800	110	< 1.5	**380**	1	16	21	29
5037708 Concession St. (back yard)	0-5 cm	16462	6800	< 0.8	16	52	< 0.5	< 0.8	3000	22	15	**260**	14000	87	1900	110	< 1.5	**350**	**2**	18	21	57
		16463	6800	< 0.8	14	50	< 0.5	< 0.8	2800	21	15	**260**	14000	57	1900	120	< 1.5	**350**	1	19	21	49
	5-10 cm	16464	7700	< 0.8	**30**	110	< 0.5	1	3900	21	**31**	**580**	18000	**150**	1900	160	< 1.5	**860**	**2**	26	23	110
		16465	8700	0.9	**25**	92	< 0.5	< 0.8	4100	26	**25**	**470**	18000	74	2000	170	< 1.5	**740**	**2**	35	29	95
	10-20 cm	16466	9100	< 0.8	**21**	110	< 0.5	< 0.8	5700	26	20	**370**	17000	120	1900	170	< 1.5	**570**	**2**	41	29	100
		16467	9300	< 0.8	**18**	110	< 0.5	< 0.8	4700	25	18	**360**	17000	66	1900	180	< 1.5	**510**	< 1	42	30	85
Table F (results in bold)			NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)			NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037709 Concession (front yard)	0-5 cm	16468	9200	< 0.8	13	43	< 0.5	< 0.8	4000	32	15	**210**	16000	45	2500	170	< 1.5	**280**	< 1	33	29	56
		16469	9800	< 0.8	13	48	< 0.5	< 0.8	4300	33	15	**250**	17000	58	2500	170	< 1.5	**300**	**2**	35	30	54
	5-10 cm	16470	7600	< 0.8	**26**	41	< 0.5	< 0.8	3300	32	**23**	**510**	16000	54	1900	120	< 1.5	**570**	**2**	29	24	39
		16471	7500	< 0.8	**22**	44	< 0.5	< 0.8	3300	29	**22**	**450**	16000	51	1900	130	< 1.5	**620**	**2**	26	24	45
	10-20 cm	16472	8900	< 0.8	**19**	45	< 0.5	< 0.8	3500	32	18	**400**	16000	39	2300	130	< 1.5	**460**	< 1	28	26	37
		16473	8400	< 0.8	**18**	54	< 0.5	< 0.8	3100	29	18	**380**	16000	61	2100	150	< 1.5	**490**	< 1	27	27	43
5037710 Concession (back yard)	0-5 cm	16474	8200	< 0.8	8	61	< 0.5	< 0.8	2800	24	11	**180**	14000	74	2000	150	< 1.5	**200**	< 1	30	26	52
		16475	9100	< 0.8	13	73	< 0.5	< 0.8	3400	28	14	**260**	16000	110	2100	160	< 1.5	**250**	**2**	42	30	62
	5-10 cm	16476	11000	< 0.8	10	87	< 0.5	< 0.8	4000	33	14	**220**	16000	110	2300	160	< 1.5	**280**	< 1	45	32	74
		16477	12000	1	13	110	< 0.5	< 0.8	3900	35	17	**350**	20000	**200**	2300	180	2.1	**350**	**2**	53	34	86
	10-20 cm	16478	11000	< 0.8	**20**	90	< 0.5	< 0.8	5100	32	15	**260**	16000	95	2400	170	< 1.5	**310**	< 1	53	33	90
		16479	9900	< 0.8	9	89	< 0.5	< 0.8	3500	29	15	**280**	18000	110	2200	160	< 1.5	**290**	< 1	46	31	65
5037711 Concession (front yard)	0-5 cm	16480	13000	< 0.8	< 5	66	< 0.5	< 0.8	4900	38	8	54	15000	15	3300	200	< 1.5	**67**	< 1	44	34	34
		16481	10000	< 0.8	6	49	< 0.5	< 0.8	3600	31	7	50	13000	14	2900	170	< 1.5	**61**	< 1	32	30	42
	5-10 cm	16482	11000	< 0.8	6	56	< 0.5	< 0.8	3300	34	8	49	17000	11	3900	220	< 1.5	**67**	< 1	30	34	36
		16483	12000	< 0.8	6	70	< 0.5	< 0.8	3500	39	9	57	18000	13	4100	240	< 1.5	**75**	< 1	33	36	37
	10-20 cm	16484	7900	< 0.8	6	32	< 0.5	< 0.8	3300	28	8	41	16000	7	4000	190	< 1.5	42	< 1	23	29	25
		16485	11000	< 0.8	6	52	< 0.5	< 0.8	3600	35	9	57	19000	13	4600	230	< 1.5	**64**	< 1	30	35	28
5037712 Concession (back yard)	0-5 cm	16486	11000	< 0.8	< 5	57	< 0.5	< 0.8	3900	32	6	39	15000	12	3200	210	< 1.5	43	< 1	32	31	32
		16487	11000	< 0.8	< 5	58	< 0.5	< 0.8	3700	30	6	33	15000	11	3100	220	< 1.5	35	< 1	31	30	59
	5-10 cm	16488	11000	< 0.8	< 5	55	< 0.5	< 0.8	3500	29	5	29	15000	8	3100	200	< 1.5	31	< 1	30	30	29
		16489	11000	< 0.8	< 5	60	< 0.5	< 0.8	3900	29	5	25	15000	7	3200	220	< 1.5	26	< 1	32	30	30
	10-20 cm	16490	6700	< 0.8	< 5	45	< 0.5	< 0.8	2500	27	6	25	11000	7	3300	190	< 1.5	26	< 1	14	23	23
		16491	8400	< 0.8	< 5	50	< 0.5	< 0.8	3700	31	6	27	14000	5	3500	210	< 1.5	22	< 1	28	30	19

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037471 East St. (front yard)	0-5 cm	15400	8800	< 0.8	13	44	< 0.5	< 0.8	5500	25	18	**250**	15000	62	2500	160	< 1.5	**350**	2	34	27	60
		15401	8500	< 0.8	12	53	< 0.5	< 0.8	5700	28	16	**240**	15000	70	2500	170	< 1.5	**320**	2	33	27	75
	5-10 cm	15402	8400	< 0.8	**23**	41	< 0.5	< 0.8	8300	24	**40**	**570**	19000	66	2300	180	< 1.5	**970**	4	31	26	87
		15403	8500	< 0.8	**20**	36	< 0.5	< 0.8	5200	25	**33**	**450**	17000	43	2400	160	< 1.5	**730**	3	25	26	74
	10-20 cm	15404	8700	< 0.8	13	40	< 0.5	< 0.8	5700	24	18	**300**	14000	26	2200	160	< 1.5	**470**	2	29	27	43
		15405	10000	< 0.8	15	42	< 0.5	< 0.8	5700	26	**22**	**350**	16000	26	2300	180	< 1.5	**610**	2	36	30	48
5037472 East St. (back yard)	0-5 cm	15406	9600	< 0.8	10	49	< 0.5	< 0.8	7700	26	14	**210**	14000	23	2600	210	< 1.5	**320**	2	36	27	54
		15407	9400	1	14	54	< 0.5	< 0.8	9500	26	21	**330**	15000	30	2600	220	< 1.5	**540**	2	34	27	74
	5-10 cm	15408	8900	< 0.8	17	54	< 0.5	< 0.8	11000	27	**24**	**360**	15000	32	2700	220	< 1.5	**620**	2	34	26	83
		15409	8700	< 0.8	15	52	< 0.5	< 0.8	10000	25	21	**310**	14000	30	2600	190	< 1.5	**530**	2	31	25	66
	10-20 cm	15410	11000	0.9	**24**	77	< 0.5	< 0.8	19000	30	**31**	**530**	18000	39	2800	230	< 1.5	**850**	3	47	30	90
		15411	9500	< 0.8	**27**	64	< 0.5	< 0.8	16000	26	**30**	**490**	19000	45	2500	220	< 1.5	**830**	2	38	28	110
5037474 East St. (back yard)	0-5 cm	15416	9900	< 0.8	< 5	43	< 0.5	< 0.8	9400	31	8	62	15000	20	5300	200	< 1.5	**81**	< 1	32	29	60
		15417	11000	< 0.8	6	41	< 0.5	< 0.8	10000	32	8	60	15000	17	5400	190	< 1.5	**76**	< 1	37	32	44
	5-10 cm	15418	11000	< 0.8	5	36	< 0.5	< 0.8	5500	32	7	42	15000	10	4000	190	< 1.5	**55**	< 1	30	32	30
		15419	12000	< 0.8	< 5	46	< 0.5	< 0.8	6200	36	8	57	16000	17	3900	210	< 1.5	**72**	< 1	38	35	33
5037734 East St. (front yard)	0-5 cm	18721	10000	< 0.8	< 5	36	< 0.5	< 0.8	5600	22	6	50	12000	14	2900	160	< 1.5	**57**	< 1	31	26	42
		18722	9500	< 0.8	< 5	36	< 0.5	< 0.8	5400	22	6	42	12000	16	2800	160	< 1.5	**51**	< 1	31	26	29
	5-10 cm	18723	8700	< 0.8	< 5	30	< 0.5	< 0.8	3100	20	5	52	12000	8	2300	130	< 1.5	40	< 1	21	24	20
		18724	8600	< 0.8	< 5	28	< 0.5	< 0.8	3200	20	7	70	12000	11	2400	130	< 1.5	**78**	< 1	23	24	21
	10-20 cm	18725	8500	< 0.8	< 5	32	< 0.5	< 0.8	2900	20	5	**110**	11000	12	2200	120	< 1.5	**71**	< 1	22	23	18
		18726	8200	< 0.8	7	34	< 0.5	< 0.8	3100	21	9	**180**	12000	22	2200	120	< 1.5	**160**	< 1	18	23	22
5037735 East St. (back yard)	0-5 cm	18727	10000	< 0.8	< 5	40	< 0.5	< 0.8	4200	31	8	42	16000	11	3900	200	< 1.5	**58**	< 1	26	30	31
		18728	11000	< 0.8	< 5	43	< 0.5	< 0.8	4500	32	8	39	16000	10	4000	210	< 1.5	**54**	< 1	31	33	31
	5-10 cm	18729	15000	< 0.8	< 5	71	< 0.5	< 0.8	5200	40	8	74	18000	17	4100	230	< 1.5	**67**	< 1	43	38	35
		18730	15000	< 0.8	< 5	71	< 0.5	< 0.8	5200	39	8	53	18000	14	4200	240	< 1.5	**65**	< 1	45	40	33
	10-20 cm	18731	16000	< 0.8	5	85	< 0.5	< 0.8	5500	39	9	81	18000	21	4000	230	< 1.5	**98**	< 1	45	38	38
		18732	15000	< 0.8	< 5	80	< 0.5	< 0.8	5200	38	9	81	18000	21	4200	250	< 1.5	**97**	< 1	47	39	42
Table F (results in bold)			NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)			NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037736 East St. (front yard)	0-5 cm	18733	14000	< 0.8	< 5	60	< 0.5	< 0.8	6800	37	9	57	17000	23	4100	230	< 1.5	**72**	< 1	44	38	43
		18734	11000	< 0.8	< 5	38	< 0.5	< 0.8	6100	30	9	65	16000	26	3800	190	< 1.5	**74**	< 1	35	31	43
	5-10 cm	18735	11000	< 0.8	< 5	28	< 0.5	< 0.8	3400	31	8	42	17000	15	3600	180	< 1.5	**50**	< 1	27	32	29
		18736	9300	< 0.8	< 5	21	< 0.5	< 0.8	2000	28	7	27	15000	8	3500	160	< 1.5	34	< 1	11	29	44
	10-20 cm	18737	9300	< 0.8	< 5	34	< 0.5	< 0.8	2700	27	8	**87**	14000	31	3100	160	< 1.5	**84**	< 1	21	28	32
		18738	10000	< 0.8	6	41	< 0.5	< 0.8	3100	30	9	**97**	16000	41	3200	180	< 1.5	**91**	< 1	28	31	36
5037737 East St. (back yard)	0-5 cm	18739	7900	< 0.8	5	47	< 0.5	< 0.8	6200	24	7	**87**	12000	62	2500	150	< 1.5	**87**	< 1	28	26	61
		18740	9200	< 0.8	< 5	45	< 0.5	< 0.8	4200	26	7	69	14000	35	2800	160	< 1.5	**80**	< 1	29	27	42
	5-10 cm	18741	8500	< 0.8	5	54	< 0.5	< 0.8	3500	22	6	**110**	13000	77	2300	130	< 1.5	**88**	< 1	27	25	52
		18742	8700	< 0.8	< 5	47	< 0.5	< 0.8	2900	24	7	**90**	14000	50	2600	140	< 1.5	**72**	< 1	23	26	42
	10-20 cm	18743	7500	< 0.8	6	54	< 0.5	< 0.8	2500	21	7	**140**	13000	85	2100	120	< 1.5	**110**	< 1	22	23	48
		18744	9000	< 0.8	6	48	< 0.5	< 0.8	2700	24	7	**95**	13000	52	2500	140	< 1.5	**75**	< 1	25	26	35
5037738 East St. (front yard)	0-5 cm	18745	9300	< 0.8	7	41	< 0.5	< 0.8	5900	25	9	**120**	13000	25	3200	160	< 1.5	**120**	< 1	30	27	51
		18746	12000	< 0.8	6	68	< 0.5	< 0.8	6700	32	9	**110**	14000	26	3500	180	< 1.5	**120**	< 1	40	32	53
	5-10 cm	18747	12000	< 0.8	6	68	< 0.5	< 0.8	4500	30	8	**120**	13000	20	2800	170	< 1.5	**100**	**3**	39	32	40
		18748	10000	< 0.8	6	48	< 0.5	< 0.8	4300	26	8	**94**	13000	21	2700	170	< 1.5	**98**	< 1	37	30	38
	10-20 cm	18749	12000	< 0.8	5	56	< 0.5	< 0.8	4200	29	8	**120**	14000	20	2900	180	< 1.5	**110**	< 1	38	31	34
		18750	11000	< 0.8	5	73	< 0.5	< 0.8	4500	31	8	**100**	13000	18	2900	180	< 1.5	**98**	< 1	40	32	42
5037739 East St. (back yard)	0-5 cm	18751	11000	< 0.8	< 5	47	< 0.5	< 0.8	4300	26	5	53	13000	18	2500	170	< 1.5	**51**	< 1	37	30	34
		18752	8400	< 0.8	< 5	35	< 0.5	< 0.8	3600	23	6	48	11000	17	2500	150	< 1.5	**60**	< 1	29	27	35
	5-10 cm	18753	8100	< 0.8	< 5	31	< 0.5	< 0.8	2700	20	5	78	11000	19	2300	130	< 1.5	**59**	< 1	23	25	33
		18754	7900	< 0.8	< 5	31	< 0.5	< 0.8	2600	19	5	38	11000	15	2300	130	< 1.5	**50**	< 1	21	24	32
	10-20 cm	18755	8000	< 0.8	< 5	38	< 0.5	< 0.8	2300	23	7	**110**	12000	25	2600	140	< 1.5	**97**	< 1	20	25	44
		18756	7600	< 0.8	< 5	39	< 0.5	< 0.8	2600	20	6	64	11000	16	2200	130	< 1.5	**86**	< 1	23	23	43

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037485 Edward St. (front yard)	0-5 cm	15480	12000	< 0.8	10	59	< 0.5	**1.2**	16000	31	16	**210**	17000	62	3200	180	< 1.5	**310**	< 1	45	33	67
		15481	11000	< 0.8	10	57	< 0.5	0.9	16000	29	19	**240**	16000	49	3100	180	< 1.5	**370**	< 1	44	31	67
	5-10 cm	15482	11000	< 0.8	16	47	< 0.5	< 0.8	8900	28	**22**	**330**	18000	46	2800	170	< 1.5	**490**	< 1	40	29	55
		15483	11000	< 0.8	15	45	< 0.5	< 0.8	7800	28	20	**300**	17000	55	2800	180	< 1.5	**430**	< 1	36	29	64
	10-20 cm	15484	11000	< 0.8	**26**	63	< 0.5	< 0.8	6000	28	**22**	**460**	18000	53	2400	190	< 1.5	**580**	< 1	38	29	59
		15485	11000	< 0.8	**19**	54	< 0.5	< 0.8	4900	29	17	**380**	18000	38	2500	180	< 1.5	**470**	< 1	35	29	53
5037486 Edward St. (back yard)	0-5 cm	15474	9500	< 0.8	**19**	51	< 0.5	1	5900	27	20	**320**	18000	60	2400	160	< 1.5	**450**	< 1	32	28	94
		15475	10000	< 0.8	17	53	< 0.5	1	5800	29	19	**290**	16000	55	2400	160	< 1.5	**420**	< 1	37	30	82
	5-10 cm	15476	10000	< 0.8	**24**	51	< 0.5	< 0.8	6000	26	19	**360**	16000	48	2300	170	< 1.5	**500**	< 1	32	26	69
		15477	8800	< 0.8	**22**	44	< 0.5	< 0.8	4200	24	20	**380**	16000	41	2100	150	< 1.5	**560**	< 1	25	24	72
	10-20 cm	15478	9700	< 0.8	8	38	< 0.5	< 0.8	4300	24	10	**130**	13000	23	2100	150	< 1.5	**220**	< 1	29	25	34
		15479	9200	< 0.8	11	39	< 0.5	< 0.8	3800	25	11	**180**	13000	24	2100	150	< 1.5	**280**	< 1	29	24	38
5037636 Edward St. (front yard)	0-5 cm	16036	13000	< 0.8	8	61	< 0.5	< 0.8	9800	31	18	**260**	17000	27	3100	200	< 1.5	**380**	**2**	48	30	55
		16037	15000	< 0.8	7	73	< 0.5	< 0.8	11000	32	17	**280**	19000	37	3600	200	< 1.5	**350**	**2**	48	31	92
	5-10 cm	16038	15000	**2.1**	11	64	< 0.5	< 0.8	8400	31	21	**340**	20000	23	3000	220	< 1.5	**460**	1	48	33	46
		16039	14000	< 0.8	**19**	59	< 0.5	< 0.8	7800	29	20	**350**	20000	31	3300	210	< 1.5	**440**	1	45	32	66
	10-20 cm	16040	14000	< 0.8	11	54	< 0.5	< 0.8	6800	33	17	**260**	20000	13	3300	220	< 1.5	**400**	**2**	41	33	43
		16041	12000	< 0.8	11	52	< 0.5	< 0.8	8700	30	21	**390**	20000	23	3100	210	< 1.5	**520**	**2**	40	31	56
5037637 Edward St. (back yard)	0-5 cm	16042	11000	< 0.8	10	56	< 0.5	1	7400	31	**30**	**370**	19000	47	3000	200	< 1.5	**640**	1	39	30	73
		16043	10000	< 0.8	10	52	< 0.5	0.9	7600	28	**28**	**370**	18000	39	2900	200	< 1.5	**630**	**2**	33	27	69
	5-10 cm	16044	8300	< 0.8	10	40	< 0.5	< 0.8	3300	23	17	**290**	15000	25	2300	170	< 1.5	**410**	**2**	14	21	42
		16045	11000	0.9	8	45	< 0.5	< 0.8	5000	26	15	**240**	16000	23	2500	190	< 1.5	**380**	< 1	34	27	41
	10-20 cm	16046	14000	< 0.8	**18**	62	< 0.5	< 0.8	5600	36	**24**	**460**	21000	26	2700	220	< 1.5	**570**	1	42	35	56
		16047	15000	< 0.8	17	79	< 0.5	< 0.8	6000	39	**24**	**440**	22000	30	2800	240	< 1.5	**580**	**2**	46	37	57

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037687 Edward St. (front yard)	0-5 cm	16336	10000	< 0.8	< 5	52	< 0.5	< 0.8	28000	26	8	53	13000	16	6100	270	< 1.5	**61**	< 1	86	26	95
		16337	9700	< 0.8	< 5	52	< 0.5	< 0.8	33000	27	7	62	13000	19	6900	270	< 1.5	**74**	< 1	80	26	110
	5-10 cm	16338	9900	< 0.8	< 5	44	< 0.5	< 0.8	30000	25	6	40	13000	15	5300	250	< 1.5	**52**	< 1	78	27	79
		16339	10000	< 0.8	< 5	50	< 0.5	< 0.8	37000	28	7	51	13000	17	6500	290	< 1.5	**65**	< 1	86	27	120
	10-20 cm	16340	10000	< 0.8	< 5	50	< 0.5	< 0.8	29000	29	7	46	13000	14	5100	270	< 1.5	**59**	< 1	78	29	83
		16341	11000	< 0.8	7	39	< 0.5	< 0.8	30000	17	9	39	15000	25	5300	170	< 1.5	**130**	< 1	44	17	62
5037688 Edward St. (back yard)	0-5 cm	16342	11000	< 0.8	9	74	< 0.5	< 0.8	14000	27	12	**170**	15000	45	3700	240	< 1.5	**220**	< 1	52	30	100
		16343	10000	< 0.8	8	79	< 0.5	0.8	12000	28	12	**160**	14000	48	3100	240	< 1.5	**230**	**2**	53	29	110
	5-10 cm	16344	9700	< 0.8	8	64	< 0.5	< 0.8	14000	25	9	**120**	13000	59	3100	240	< 1.5	**150**	< 1	51	28	92
		16345	9600	< 0.8	8	66	< 0.5	< 0.8	16000	24	9	**120**	12000	32	3300	230	< 1.5	**170**	**2**	54	27	90
	10-20 cm	16346	11000	< 0.8	8	63	< 0.5	< 0.8	15000	28	10	**140**	15000	32	3800	240	< 1.5	**200**	1	56	31	86
		16347	11000	< 0.8	8	62	< 0.5	< 0.8	15000	33	10	**130**	14000	32	3600	220	< 1.5	**180**	1	58	29	94
5037689 Edward St. (front yard)	0-5 cm	16348	7300	< 0.8	14	53	< 0.5	**1.8**	9900	35	**32**	**480**	18000	78	3200	160	< 1.5	**610**	**2**	26	23	86
		16349	7800	0.9	17	60	< 0.5	**2**	11000	34	**40**	**600**	21000	79	3000	200	< 1.5	**820**	**2**	29	25	94
	5-10 cm	16350	9900	< 0.8	13	30	< 0.5	0.8	5100	28	19	**350**	17000	19	2000	150	< 1.5	**430**	1	22	29	50
		16351	9200	< 0.8	14	30	< 0.5	< 0.8	3400	24	17	**270**	16000	19	1600	150	< 1.5	**410**	1	18	26	38
	10-20 cm	16352	7700	< 0.8	8	26	< 0.5	< 0.8	2400	22	8	**90**	13000	11	2100	150	< 1.5	**160**	< 1	16	26	21
		16353	7000	< 0.8	8	27	< 0.5	< 0.8	2100	22	8	**120**	12000	69	1900	150	< 1.5	**180**	< 1	15	23	24
5037690 Edward St. (back yard)	0-5 cm	16354	7700	**2**	9	48	< 0.5	**1.8**	8000	28	**25**	**300**	14000	52	2800	210	< 1.5	**500**	1	25	23	160
		16355	7500	**1.3**	10	48	< 0.5	**1.8**	7000	29	**27**	**310**	14000	52	2800	250	< 1.5	**540**	1	27	24	110
	5-10 cm	16356	6400	< 0.8	8	24	< 0.5	< 0.8	2100	21	7	**88**	11000	12	2000	130	< 1.5	**130**	< 1	13	21	23
		16357	5800	< 0.8	7	23	< 0.5	< 0.8	1700	19	7	77	9900	9	1700	130	< 1.5	**120**	< 1	10	19	21
	10-20 cm	16358	5400	< 0.8	< 5	19	< 0.5	< 0.8	1800	22	5	43	11000	4	2000	110	< 1.5	**55**	< 1	16	24	12
		16359	7500	< 0.8	< 5	27	< 0.5	< 0.8	2600	23	5	41	12000	4	2100	150	< 1.5	**58**	< 1	28	26	14

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037691 Edward St. (front yard)	0-5 cm	16360	12000	**1.4**	**25**	100	< 0.5	**1.8**	4500	**74**	**33**	**640**	25000	**170**	2600	210	< 1.5	**690**	**2**	40	29	140
		16361	14000	1	**25**	110	< 0.5	**2.2**	5900	**75**	**37**	**720**	26000	**180**	2800	230	< 1.5	**800**	**3**	43	31	160
	5-10 cm	16362	11000	< 0.8	**20**	54	< 0.5	0.8	3200	41	17	**320**	16000	73	1600	140	< 1.5	**440**	1	36	28	60
		16363	13000	< 0.8	**19**	69	< 0.5	**1.1**	4200	57	18	**320**	18000	60	1900	160	< 1.5	**540**	1	42	31	75
	10-20 cm	16364	9600	< 0.8	8	37	< 0.5	< 0.8	2400	29	9	**170**	13000	28	1600	120	< 1.5	**250**	**3**	29	28	40
		16365	8100	< 0.8	9	35	< 0.5	< 0.8	2100	23	9	**120**	12000	24	1400	110	< 1.5	**260**	**4**	24	26	33
5037692 Edward St. (back yard)	0-5 cm	16366	9000	< 0.8	< 5	36	< 0.5	< 0.8	2700	29	8	50	15000	15	3300	180	< 1.5	**69**	**2**	26	28	38
		16367	9300	1	< 5	31	< 0.5	< 0.8	2500	29	7	37	15000	12	3500	180	< 1.5	**48**	**2**	25	29	30
	5-10 cm	16368	9200	< 0.8	7	43	< 0.5	< 0.8	2700	31	11	**110**	17000	29	3500	190	< 1.5	**160**	**3**	28	29	41
		16369	9200	< 0.8	6	43	< 0.5	< 0.8	2600	32	10	74	17000	27	3800	200	< 1.5	**92**	**2**	28	32	37
	10-20 cm	16370	8500	0.9	11	48	< 0.5	< 0.8	2600	34	15	**210**	18000	43	3600	190	< 1.5	**290**	**5**	29	28	54
		16371	8900	< 0.8	7	43	< 0.5	< 0.8	3000	32	10	**97**	17000	34	3800	200	< 1.5	**140**	**3**	30	31	48
5037693 Edward St. (front yard)	0-5 cm	16372	9800	< 0.8	< 5	40	< 0.5	< 0.8	3000	30	7	46	14000	15	3200	190	< 1.5	**64**	**2**	28	29	35
		16373	8600	< 0.8	< 5	44	< 0.5	< 0.8	2300	28	7	74	13000	29	2700	170	< 1.5	**93**	**2**	23	26	45
	5-10 cm	16374	8500	< 0.8	< 5	44	< 0.5	< 0.8	2500	28	8	69	13000	27	2700	170	< 1.5	**88**	**2**	24	26	38
		16375	11000	< 0.8	< 5	47	< 0.5	< 0.8	3400	29	7	80	14000	17	2900	190	< 1.5	**99**	**2**	36	29	41
	10-20 cm	16376	11000	< 0.8	< 5	64	< 0.5	< 0.8	3800	31	8	**110**	13000	26	2400	180	< 1.5	**160**	**3**	43	30	56
		16377	10000	< 0.8	< 5	55	< 0.5	< 0.8	3100	27	7	**100**	13000	25	2100	170	< 1.5	**130**	**9**	40	28	54
5037694 Edward St. (back yard)	0-5 cm	16378	16000	**1.9**	< 5	71	< 0.5	< 0.8	4500	41	7	35	17000	10	4000	220	< 1.5	**47**	**4**	48	38	33
		16379	16000	< 0.8	< 5	67	< 0.5	< 0.8	4700	40	8	46	18000	14	4000	230	< 1.5	**59**	**4**	48	38	37
	5-10 cm	16380	19000	< 0.8	< 5	82	< 0.5	< 0.8	4000	44	7	17	19000	5	4200	230	< 1.5	34	1	49	42	29
		16381	15000	< 0.8	< 5	54	< 0.5	< 0.8	3300	38	8	21	18000	6	4000	230	< 1.5	37	1	41	36	29
	10-20 cm	16382	9600	< 0.8	< 5	39	< 0.5	< 0.8	2400	32	8	33	17000	8	3800	190	< 1.5	**54**	< 1	21	29	25
		16383	9400	< 0.8	< 5	36	< 0.5	< 0.8	2400	32	8	37	16000	7	3900	200	< 1.5	**55**	< 1	20	28	27

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037695 Edward St. (front yard)	0-5 cm	16384	6500	< 0.8	6	43	< 0.5	**1.2**	6200	29	**32**	<u>**470**</u>	17000	62	3200	160	< 1.5	<u>**680**</u>	**2**	16	22	56
		16385	8100	< 0.8	9	54	< 0.5	**1.3**	7700	30	**38**	<u>**610**</u>	19000	69	3100	180	< 1.5	<u>**830**</u>	**2**	27	26	55
	5-10 cm	16386	9300	< 0.8	< 5	56	< 0.5	< 0.8	4300	34	14	**190**	16000	22	3300	200	< 1.5	<u>**290**</u>	< 1	23	29	33
		16387	13000	< 0.8	6	74	< 0.5	< 0.8	4700	39	9	**88**	19000	8	4300	240	< 1.5	<u>**160**</u>	< 1	40	35	26
	10-20 cm	16388	13000	< 0.8	7	69	< 0.5	< 0.8	4000	36	9	**110**	18000	9	3700	220	< 1.5	**120**	< 1	37	33	28
		16389	13000	< 0.8	< 5	74	< 0.5	< 0.8	4000	38	9	72	19000	7	4100	230	< 1.5	**99**	< 1	40	35	22
5037696 Edward St. (back yard)	0-5 cm	16390	8200	< 0.8	5	55	< 0.5	0.9	4800	32	**23**	<u>**380**</u>	15000	42	2100	180	< 1.5	<u>**450**</u>	1	31	22	62
		16391	7700	< 0.8	14	47	< 0.5	< 0.8	4000	26	19	<u>**340**</u>	15000	36	2100	170	< 1.5	<u>**360**</u>	1	28	23	52
	5-10 cm	16392	8000	< 0.8	13	59	< 0.5	< 0.8	3800	23	13	<u>**260**</u>	14000	26	2200	240	< 1.5	<u>**250**</u>	1	33	24	40
		16393	7500	< 0.8	12	43	< 0.5	< 0.8	3600	22	13	<u>**260**</u>	14000	22	1900	180	< 1.5	<u>**290**</u>	1	23	23	38
	10-20 cm	16394	5400	< 0.8	11	36	< 0.5	< 0.8	2300	16	10	**200**	11000	24	1600	160	< 1.5	<u>**190**</u>	< 1	14	17	28
		16395	6200	< 0.8	15	38	< 0.5	< 0.8	3100	20	12	**200**	12000	23	1800	160	< 1.5	<u>**240**</u>	1	21	21	32
5037697 Edward St. (front yard)	0-5 cm	16396	8300	< 0.8	5	33	< 0.5	< 0.8	3500	26	9	85	13000	24	2700	150	< 1.5	**100**	< 1	25	24	35
		16397	8900	< 0.8	6	35	< 0.5	< 0.8	3800	26	8	**86**	13000	25	2700	170	< 1.5	**100**	< 1	31	25	35
	5-10 cm	16398	11000	< 0.8	< 5	36	< 0.5	< 0.8	3700	26	5	45	13000	10	2300	150	< 1.5	**58**	< 1	43	29	22
		16399	11000	< 0.8	< 5	33	< 0.5	< 0.8	3500	25	6	39	14000	10	2200	160	< 1.5	**58**	< 1	41	27	21
	10-20 cm	16400	9600	< 0.8	< 5	30	< 0.5	< 0.8	3200	26	6	35	13000	12	2700	160	< 1.5	41	< 1	35	28	20
		16401	10000	< 0.8	< 5	31	< 0.5	< 0.8	3100	26	6	35	14000	6	2700	160	< 1.5	41	< 1	35	27	19
5037698 Edward St. (back yard)	0-5 cm	16402	14000	< 0.8	7	47	< 0.5	< 0.8	3800	33	7	34	17000	7	3400	200	< 1.5	**47**	< 1	42	33	34
		16403	12000	< 0.8	5	37	< 0.5	< 0.8	3400	28	7	32	16000	8	3300	180	< 1.5	**44**	**2**	33	28	31
	5-10 cm	16404	13000	< 0.8	8	38	< 0.5	< 0.8	3000	30	8	25	17000	6	3500	190	< 1.5	35	**2**	33	32	27
		16405	13000	< 0.8	< 5	37	< 0.5	< 0.8	2900	29	7	27	18000	6	3300	190	< 1.5	37	< 1	33	31	27
	10-20 cm	16406	13000	< 0.8	< 5	52	< 0.5	< 0.8	3000	34	8	24	19000	5	4200	210	< 1.5	33	< 1	33	32	24
		16407	16000	< 0.8	< 5	57	< 0.5	< 0.8	3400	35	9	24	20000	6	4400	220	< 1.5	34	**2**	38	34	26

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037699 Edward St. (front yard)	0-5 cm	16408	10000	< 0.8	11	51	< 0.5	1	8600	33	17	230	18000	140	4400	200	< 1.5	300	1	33	28	99
		16409	9500	< 0.8	12	46	< 0.5	0.9	6800	32	18	240	16000	110	3300	180	< 1.5	330	1	33	25	87
	5-10 cm	16410	9000	< 0.8	18	54	< 0.5	< 0.8	4400	27	19	340	17000	110	2400	190	< 1.5	420	1	30	25	87
		16411	8600	1.8	21	54	< 0.5	< 0.8	3300	27	18	370	16000	120	2200	180	< 1.5	410	2	26	24	79
	10-20 cm	16412	8100	< 0.8	21	76	< 0.5	< 0.8	2900	25	20	470	16000	140	2100	200	< 1.5	450	2	22	23	86
		16413	8200	< 0.8	16	73	< 0.5	< 0.8	2700	25	17	410	14000	120	2000	200	< 1.5	410	1	24	23	87
5037700 Edward St. (back yard)	0-5 cm	16414	11000	< 0.8	23	60	< 0.5	1.4	9800	33	34	560	20000	71	3300	250	< 1.5	790	2	35	30	94
		16415	14000	< 0.8	21	80	< 0.5	1.6	10000	37	33	550	20000	85	3600	290	< 1.5	770	2	41	34	110
	5-10 cm	16416	13000	< 0.8	14	61	< 0.5	< 0.8	7100	31	12	190	16000	21	2600	270	< 1.5	310	2	41	33	44
		16417	11000	< 0.8	13	53	< 0.5	< 0.8	6700	29	13	210	16000	28	2500	250	< 1.5	320	2	35	31	48
	10-20 cm	16418	18000	< 0.8	7	99	< 0.5	< 0.8	5600	41	9	97	20000	13	4400	280	< 1.5	140	< 1	46	38	33
		16419	17000	< 0.8	6	98	< 0.5	< 0.8	5300	40	9	76	20000	13	4600	290	< 1.5	120	< 1	45	38	33
5037701 Edward St. (front yard)	0-5 cm	16420	12000	< 0.8	10	54	< 0.5	< 0.8	4800	31	17	220	19000	48	3100	170	< 1.5	280	1	38	30	70
		16421	9200	< 0.8	6	42	< 0.5	< 0.8	5300	27	17	230	16000	43	2800	150	< 1.5	290	1	28	24	65
	5-10 cm	16422	9800	< 0.8	9	33	< 0.5	< 0.8	3200	27	15	230	17000	33	3000	160	< 1.5	280	1	26	27	49
		16423	9600	< 0.8	< 5	27	< 0.5	< 0.8	2500	24	11	150	15000	15	2700	140	< 1.5	180	< 1	20	24	31
	10-20 cm	16424	9200	< 0.8	< 5	33	0.5	< 0.8	2300	25	9	150	14000	22	2600	130	< 1.5	150	< 1	22	24	35
		16425	10000	< 0.8	< 5	29	< 0.5	< 0.8	2000	25	8	52	14000	8	2700	130	< 1.5	93	< 1	19	26	26
5037702 Edward St. (back yard)	0-5 cm	16426	8100	< 0.8	17	44	< 0.5	0.9	3000	29	19	330	15000	49	2300	140	< 1.5	340	2	24	24	81
		16427	8500	< 0.8	15	45	< 0.5	1.1	3700	31	20	300	14000	51	2900	150	< 1.5	350	2	19	24	86
	5-10 cm	16428	8900	< 0.8	12	34	< 0.5	< 0.8	2300	25	9	160	12000	21	2100	120	< 1.5	160	1	25	26	33
		16429	8700	< 0.8	9	33	< 0.5	< 0.8	2300	25	8	130	12000	15	2000	130	< 1.5	160	1	25	25	30
	10-20 cm	16430	7500	< 0.8	7	30	< 0.5	< 0.8	1400	24	8	78	13000	16	2600	130	< 1.5	100	< 1	13	23	28
		16431	8700	< 0.8	9	40	0.5	< 0.8	2300	27	9	120	14000	27	2900	160	< 1.5	140	< 1	24	27	43

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037703 Edward St. (front yard)	0-5 cm	16432	8300	< 0.8	< 5	42	< 0.5	< 0.8	3200	29	8	67	13000	20	2800	190	< 1.5	**87**	< 1	25	26	26
		16433	8800	< 0.8	< 5	51	0.5	< 0.8	3700	33	8	74	13000	23	3000	210	< 1.5	**97**	< 1	30	29	29
	5-10 cm	16434	8600	< 0.8	< 5	43	< 0.5	< 0.8	3000	29	8	68	13000	13	2800	200	< 1.5	**95**	< 1	23	27	20
		16435	8500	< 0.8	< 5	45	< 0.5	< 0.8	3500	28	7	75	13000	16	2700	200	< 1.5	**96**	< 1	26	28	24
	10-20 cm	16436	7500	< 0.8	< 5	39	< 0.5	< 0.8	2900	25	8	**95**	12000	12	2300	180	< 1.5	**130**	< 1	25	25	17
		16437	9300	< 0.8	< 5	44	< 0.5	< 0.8	3900	29	8	**99**	13000	12	2400	190	1.6	**130**	< 1	36	28	18
5037704 Edward St. (back yard)	0-5 cm	16438	9900	< 0.8	< 5	50	< 0.5	< 0.8	3900	32	6	60	12000	11	2900	200	< 1.5	**57**	< 1	37	30	25
		16439	12000	< 0.8	< 5	63	< 0.5	< 0.8	4200	34	7	55	14000	14	3100	210	< 1.5	**65**	< 1	40	31	28
	5-10 cm	16440	7800	< 0.8	< 5	40	< 0.5	< 0.8	3200	26	5	38	11000	8	2600	180	< 1.5	**51**	< 1	31	26	16
		16441	11000	**1.1**	< 5	58	< 0.5	< 0.8	3700	32	6	37	13000	8	2900	210	< 1.5	**52**	< 1	38	31	16
	10-20 cm	16442	6600	< 0.8	< 5	36	< 0.5	< 0.8	2800	22	5	33	10000	5	2300	160	< 1.5	**48**	< 1	28	24	11
		16443	6300	< 0.8	< 5	32	< 0.5	< 0.8	2600	23	5	22	10000	6	2300	160	< 1.5	36	< 1	23	23	10
5037647 Nickel St. (front yard)	0-5 cm	16102	10000	**1.1**	7	58	< 0.5	< 0.8	6100	33	12	**140**	16000	32	3600	200	< 1.5	**210**	< 1	37	30	63
		16103	11000	< 0.8	8	67	< 0.5	< 0.8	7100	35	13	**160**	16000	34	3700	220	< 1.5	**230**	< 1	39	32	70
	5-10 cm	16104	11000	**1.3**	8	47	< 0.5	< 0.8	4600	36	11	**110**	17000	17	4000	220	< 1.5	**170**	< 1	35	33	41
		16105	12000	< 0.8	8	44	< 0.5	< 0.8	5100	38	12	**110**	19000	16	4500	230	< 1.5	**170**	< 1	33	36	54
	10-20 cm	16106	8500	< 0.8	17	56	< 0.5	< 0.8	4200	30	**22**	**370**	17000	34	3100	200	< 1.5	**440**	< 1	31	29	55
		16107	11000	< 0.8	13	73	< 0.5	< 0.8	5500	33	19	**340**	16000	30	3100	210	< 1.5	**440**	< 1	39	31	63
5037648 Nickel St. (back yard)	0-5 cm	16096	9600	< 0.8	10	71	< 0.5	< 0.8	6000	25	16	**240**	14000	62	2300	190	< 1.5	**390**	< 1	39	23	94
		16097	9900	< 0.8	12	79	< 0.5	< 0.8	6800	26	20	**300**	15000	86	2300	210	< 1.5	**510**	< 1	43	24	120
	5-10 cm	16098	9300	< 0.8	12	70	< 0.5	< 0.8	5700	25	18	**290**	14000	69	2100	200	< 1.5	**460**	< 1	40	23	93
		16099	9900	**1.2**	14	77	< 0.5	< 0.8	6400	25	18	**310**	15000	73	2100	230	< 1.5	**480**	< 1	44	24	110
	10-20 cm	16100	9500	< 0.8	13	70	< 0.5	< 0.8	5700	26	19	**300**	14000	67	2100	210	< 1.5	**500**	1	42	24	95
		16101	10000	< 0.8	15	83	< 0.5	< 0.8	7400	31	17	**310**	15000	74	2500	230	< 1.5	**490**	< 1	46	28	100

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037748 Nickel St. (front yard)	0-5 cm	18805	12000	< 0.8	6	56	< 0.5	< 0.8	4400	35	8	79	14000	12	2700	190	< 1.5	**130**	< 1	38	31	35
		18806	13000	< 0.8	7	57	< 0.5	< 0.8	4300	36	8	**95**	14000	13	3200	190	< 1.5	**140**	< 1	31	30	40
	5-10 cm	18807	10000	< 0.8	8	47	< 0.5	< 0.8	3400	28	10	**110**	13000	13	2600	170	< 1.5	**170**	< 1	23	27	33
		18808	12000	< 0.8	8	55	< 0.5	< 0.8	4100	30	12	**160**	14000	15	2800	190	< 1.5	**240**	**2**	28	29	36
	10-20 cm	18809	8900	< 0.8	6	32	< 0.5	< 0.8	3200	24	9	**97**	11000	8	2500	130	< 1.5	**170**	< 1	22	26	23
		18810	10000	< 0.8	8	41	< 0.5	< 0.8	4300	26	11	**150**	13000	12	2900	140	< 1.5	**220**	< 1	28	28	27
5037749 Nickel St. (back yard)	0-5 cm	18811	11000	< 0.8	8	61	< 0.5	< 0.8	5500	32	15	**160**	15000	18	2800	210	< 1.5	**240**	< 1	38	31	34
		18812	9800	< 0.8	8	49	< 0.5	< 0.8	3900	28	13	**140**	14000	16	2300	180	< 1.5	**210**	< 1	29	26	28
	5-10 cm	18813	9000	< 0.8	7	37	< 0.5	< 0.8	3200	24	7	76	13000	8	2200	150	< 1.5	**120**	< 1	27	26	17
		18814	9500	< 0.8	7	38	< 0.5	< 0.8	3200	24	7	78	13000	8	2200	160	< 1.5	**130**	< 1	28	27	19
	10-20 cm	18815	8800	< 0.8	6	40	< 0.5	< 0.8	3300	26	7	63	12000	6	2300	150	< 1.5	**98**	< 1	32	27	14
		18816	11000	< 0.8	7	54	< 0.5	< 0.8	3800	31	7	62	13000	6	2500	180	< 1.5	**100**	< 1	37	29	15
5037630 Oak St. (front yard)	0-5 cm	16000	11000	< 0.8	6	46	< 0.5	< 0.8	4000	30	6	49	15000	15	2800	180	< 1.5	**58**	< 1	39	30	24
		16001	13000	< 0.8	6	57	< 0.5	< 0.8	4300	33	6	62	15000	15	2500	180	< 1.5	**74**	< 1	42	32	28
	5-10 cm	16002	13000	< 0.8	5	54	< 0.5	< 0.8	4400	32	6	45	16000	9	3200	200	< 1.5	**53**	< 1	41	33	21
		16003	15000	**3**	6	67	< 0.5	< 0.8	5400	38	7	55	18000	15	3400	230	< 1.5	**61**	< 1	45	35	26
	10-20 cm	16004	11000	< 0.8	< 5	44	< 0.5	< 0.8	6600	32	7	27	17000	5	4700	220	< 1.5	32	< 1	39	34	19
		16005	12000	< 0.8	< 5	57	< 0.5	< 0.8	5600	36	7	30	17000	7	4700	240	< 1.5	34	< 1	43	36	21
5037631 Oak St. (back yard)	0-5 cm	16006	11000	< 0.8	7	36	< 0.5	< 0.8	3600	25	4	52	13000	11	2000	150	< 1.5	**52**	< 1	40	27	19
		16007	8700	< 0.8	7	27	< 0.5	< 0.8	1400	21	4	53	12000	10	1600	100	< 1.5	42	< 1	14	21	18
	5-10 cm	16008	9800	< 0.8	6	34	< 0.5	< 0.8	2000	24	4	46	13000	10	2200	130	< 1.5	**46**	< 1	21	25	18
		16009	9900	**1.4**	7	33	< 0.5	< 0.8	2100	24	5	49	13000	11	2100	140	< 1.5	**50**	< 1	23	25	18
	10-20 cm	16010	10000	< 0.8	< 5	36	< 0.5	< 0.8	2600	30	8	40	16000	8	3800	200	< 1.5	**55**	< 1	23	29	23
		16011	9800	< 0.8	< 5	39	< 0.5	< 0.8	2500	31	7	30	15000	6	3800	190	< 1.5	40	< 1	24	30	21

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037632 Oak St. (back yard)	0-5 cm	16012	9800	< 0.8	7	55	< 0.5	< 0.8	3800	27	12	**160**	15000	23	2900	210	< 1.5	**210**	< 1	28	26	51
		16013	11000	< 0.8	8	61	< 0.5	< 0.8	4400	29	14	**180**	16000	25	3200	240	< 1.5	**240**	< 1	32	27	56
	5-10 cm	16014	11000	< 0.8	5	57	< 0.5	< 0.8	3000	32	9	76	17000	23	3700	210	< 1.5	**100**	< 1	26	29	36
		16015	11000	< 0.8	7	53	< 0.5	< 0.8	3100	31	10	**100**	17000	15	3500	220	< 1.5	**130**	< 1	24	28	37
	10-20 cm	16016	11000	**2.7**	16	70	< 0.5	< 0.8	3400	35	17	**290**	23000	**150**	3700	210	< 1.5	**270**	< 1	32	31	42
		16017	13000	**2.7**	7	72	< 0.5	< 0.8	4200	38	12	**88**	19000	**160**	4400	280	< 1.5	**130**	< 1	39	34	35
5037633 Oak St. (back yard)	0-5 cm	16018	14000	< 0.8	10	83	< 0.5	< 0.8	6800	35	14	**220**	16000	32	2900	240	< 1.5	**300**	< 1	46	29	64
		16019	12000	< 0.8	9	66	< 0.5	< 0.8	6200	31	12	**180**	15000	28	2600	210	< 1.5	**250**	< 1	44	27	52
	5-10 cm	16020	15000	< 0.8	16	97	< 0.5	< 0.8	7000	33	20	**380**	19000	44	2800	260	< 1.5	**500**	< 1	50	31	76
		16021	13000	< 0.8	13	78	< 0.5	< 0.8	6200	29	17	**320**	18000	37	2600	230	< 1.5	**430**	< 1	48	30	66
	10-20 cm	16022	15000	< 0.8	15	89	< 0.5	< 0.8	6300	31	17	**330**	18000	32	2900	250	< 1.5	**420**	< 1	50	32	64
		16023	12000	< 0.8	**18**	110	< 0.5	< 0.8	6900	28	**27**	**510**	20000	56	2700	250	< 1.5	**730**	**3**	47	27	100
5037634 Oak St. (front yard)	0-5 cm	16030	9200	**1.4**	17	180	< 0.5	**1.2**	6200	28	**39**	**700**	22000	**140**	2400	200	< 1.5	**980**	**2**	37	22	160
		16031	8700	**1.3**	17	130	< 0.5	**1.1**	6300	28	**38**	**720**	22000	**130**	2400	180	< 1.5	**910**	**3**	31	22	130
	5-10 cm	16032	8900	**1.3**	**22**	120	< 0.5	0.9	5400	22	**40**	**820**	23000	**130**	2000	190	< 1.5	**1100**	**2**	33	22	130
		16033	9400	**1.3**	**25**	150	< 0.5	1	6100	26	**42**	**920**	23000	**130**	2100	210	< 1.5	**1200**	**4**	35	23	140
	10-20 cm	16034	10000	**1.7**	**27**	180	< 0.5	0.9	6100	24	**43**	**1000**	26000	**170**	2200	220	< 1.5	**1400**	**3**	42	24	150
		16035	13000	**1.6**	**29**	200	< 0.5	1	8100	31	**43**	**1100**	27000	**160**	2400	260	< 1.5	**1300**	**3**	58	28	160
5037635 Oak St. (back yard)	0-5 cm	16024	9200	**1.2**	**18**	90	< 0.5	**1.1**	3800	26	**30**	**540**	22000	**130**	2500	170	< 1.5	**650**	**2**	26	23	140
		16025	8400	**3**	14	84	< 0.5	**1.1**	3000	28	21	**470**	20000	120	2600	170	< 1.5	**400**	**2**	20	22	120
	5-10 cm	16026	9000	0.9	**21**	78	< 0.5	< 0.8	3200	25	**27**	**520**	23000	110	2200	150	< 1.5	**610**	**2**	25	23	110
		16027	11000	**1.5**	14	72	< 0.5	< 0.8	3200	28	20	**430**	22000	86	2900	170	< 1.5	**370**	**3**	28	27	92
	10-20 cm	16028	9900	**1.9**	**34**	110	< 0.5	< 0.8	4100	26	**32**	**730**	27000	**150**	2300	160	< 1.5	**690**	**4**	27	25	98
		16029	10000	1	**26**	83	< 0.5	< 0.8	2400	26	**24**	**620**	28000	120	2400	150	< 1.5	**470**	< 1	24	26	67

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037673 Spruce St. (front yard)	0-5 cm	16252	11000	< 0.8	< 5	54	< 0.5	< 0.8	9500	28	8	**92**	15000	25	4000	170	< 1.5	**100**	< 1	42	29	30
		16253	9100	< 0.8	< 5	39	< 0.5	< 0.8	7000	24	7	82	13000	22	3400	160	< 1.5	**91**	1	36	27	27
	5-10 cm	16254	10000	< 0.8	< 5	45	< 0.5	< 0.8	5200	26	7	**86**	14000	14	2600	170	< 1.5	**80**	< 1	41	30	20
		16255	11000	< 0.8	< 5	45	< 0.5	< 0.8	5200	27	6	66	14000	11	2800	170	< 1.5	**64**	< 1	39	31	20
	10-20 cm	16256	7300	< 0.8	5	35	< 0.5	< 0.8	3400	21	6	**100**	11000	15	2300	130	< 1.5	**88**	< 1	28	25	18
		16257	7200	< 0.8	< 5	34	< 0.5	< 0.8	3300	21	7	81	12000	13	2300	140	< 1.5	**94**	< 1	27	24	19
5037674 Spruce St. (back yard)	0-5 cm	16258	7400	< 0.8	8	40	< 0.5	< 0.8	5000	20	9	**150**	13000	45	2400	130	< 1.5	**180**	< 1	26	23	63
		16259	6600	< 0.8	5	38	< 0.5	< 0.8	3900	20	10	**140**	12000	47	2300	130	1.6	**180**	< 1	20	21	53
	5-10 cm	16260	7100	< 0.8	6	36	< 0.5	< 0.8	5000	19	9	**150**	11000	42	2300	120	< 1.5	**170**	< 1	22	22	36
		16261	7500	< 0.8	7	39	< 0.5	< 0.8	4500	20	10	**180**	13000	42	2300	130	< 1.5	**190**	< 1	24	23	42
	10-20 cm	16262	6900	< 0.8	6	39	< 0.5	< 0.8	4100	18	8	**140**	11000	48	2100	110	< 1.5	**170**	< 1	22	21	39
		16263	7500	< 0.8	9	49	< 0.5	< 0.8	3900	19	11	**200**	13000	60	2200	120	< 1.5	**240**	< 1	25	22	45
5037493 Walter Cres (front yard)	0-5 cm	15526	11000	< 0.8	6	56	< 0.5	< 0.8	5900	31	9	**90**	15000	12	3000	210	< 1.5	**140**	< 1	37	31	37
		15527	11000	< 0.8	6	58	< 0.5	< 0.8	6300	31	9	**91**	16000	11	3000	210	< 1.5	**140**	< 1	40	33	36
	5-10 cm	15528	14000	< 0.8	< 5	71	< 0.5	< 0.8	7000	38	7	**110**	16000	9	3500	250	< 1.5	**120**	< 1	50	39	41
		15529	13000	< 0.8	5	68	< 0.5	< 0.8	7100	35	9	**100**	17000	11	3600	240	< 1.5	**140**	< 1	48	36	38
	10-20 cm	15530	17000	< 0.8	< 5	95	< 0.5	< 0.8	8200	43	9	**120**	20000	9	4400	270	< 1.5	**150**	< 1	55	42	34
		15531	15000	< 0.8	6	78	< 0.5	< 0.8	7800	38	8	**110**	19000	7	4000	250	< 1.5	**120**	< 1	51	37	31
5037494 Walter Cres (back yard)	0-5 cm	15520	9900	< 0.8	6	45	< 0.5	< 0.8	6400	28	8	**88**	13000	14	2400	180	< 1.5	**130**	< 1	38	28	42
		15521	12000	< 0.8	6	54	< 0.5	< 0.8	8800	31	8	79	17000	12	2900	230	< 1.5	**120**	< 1	40	35	45
	5-10 cm	15522	9500	**1.2**	6	41	< 0.5	< 0.8	5800	27	8	**90**	13000	12	2200	160	< 1.5	**140**	< 1	38	27	32
		15523	11000	< 0.8	7	54	< 0.5	< 0.8	7500	31	8	**88**	19000	15	2800	230	< 1.5	**130**	< 1	42	38	60
	10-20 cm	15524	10000	< 0.8	7	43	< 0.5	< 0.8	4400	26	8	**110**	15000	10	2100	160	< 1.5	**150**	< 1	34	29	26
		15525	9200	< 0.8	6	43	< 0.5	< 0.8	4500	28	8	**86**	16000	11	2100	160	< 1.5	**150**	< 1	26	31	36

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037496 Walter Cres. (front yard)	0-5 cm	15543	8700	< 0.8	< 5	50	< 0.5	< 0.8	4000	29	7	50	13000	10	2800	180	< 1.5	**88**	1	33	28	23
		15544	9200	< 0.8	< 5	55	< 0.5	< 0.8	5100	30	7	57	14000	11	3200	190	< 1.5	**99**	< 1	34	29	27
	5-10 cm	15545	7600	< 0.8	< 5	47	< 0.5	< 0.8	3700	28	8	54	13000	9	2900	180	< 1.5	**110**	< 1	23	26	22
		15546	7400	< 0.8	< 5	45	< 0.5	< 0.8	4000	28	7	53	12000	10	3100	180	< 1.5	**99**	< 1	24	26	24
	10-20 cm	15547	7500	< 0.8	< 5	46	< 0.5	< 0.8	3600	29	7	47	13000	6	2900	170	< 1.5	**96**	< 1	25	28	19
		15548	7600	< 0.8	< 5	47	< 0.5	< 0.8	3300	28	7	51	13000	6	3000	170	< 1.5	**91**	< 1	24	27	18
5037497 Walter Cres. (back yard)	0-5 cm	15537	9600	< 0.8	< 5	59	< 0.5	< 0.8	5300	30	9	76	14000	15	3200	210	< 1.5	**120**	< 1	36	29	36
		15538	9400	< 0.8	< 5	63	< 0.5	< 0.8	5400	31	8	74	14000	30	3200	220	< 1.5	**110**	< 1	36	30	39
	5-10 cm	15539	9500	< 0.8	< 5	59	< 0.5	< 0.8	5400	30	9	79	14000	14	3300	200	< 1.5	**120**	< 1	35	30	35
		15540	9500	**1.1**	< 5	57	< 0.5	< 0.8	5700	30	8	77	14000	17	3300	230	< 1.5	**110**	< 1	34	29	39
	10-20 cm	15541	8200	< 0.8	< 5	53	< 0.5	< 0.8	5400	28	8	63	14000	9	3400	200	< 1.5	**100**	< 1	29	27	29
		15542	11000	< 0.8	< 5	73	< 0.5	< 0.8	6600	34	8	70	15000	16	3800	230	< 1.5	**110**	< 1	44	33	38
5037488 Walter St. (front yard)	0-5 cm	15497	8400	< 0.8	10	90	< 0.5	**1.1**	12000	36	**22**	**370**	15000	45	2700	230	1.6	**470**	**2**	44	26	130
		15498	8200	< 0.8	13	88	< 0.5	**1.4**	14000	43	**27**	**460**	16000	56	2700	220	1.5	**560**	**2**	44	25	160
	5-10 cm	15499	7700	< 0.8	14	69	< 0.5	**1.1**	10000	46	**31**	**620**	17000	46	2200	190	1.7	**720**	**2**	40	24	110
		15500	7300	< 0.8	10	60	< 0.5	1	8300	36	**25**	**490**	15000	36	2100	170	< 1.5	**550**	**2**	36	24	100
	10-20 cm	15501	6600	< 0.8	13	56	< 0.5	< 0.8	5400	26	19	**430**	13000	28	1800	160	< 1.5	**520**	**2**	31	22	84
		15502	6900	< 0.8	11	54	< 0.5	< 0.8	6800	34	18	**380**	14000	29	2100	170	< 1.5	**500**	**2**	32	23	91
5037489 Walter St. (back yard)	0-5 cm	15491	5800	< 0.8	10	67	< 0.5	**1.2**	8600	30	**29**	**400**	15000	53	2600	170	< 1.5	**610**	< 1	24	18	150
		15492	6000	< 0.8	9	61	< 0.5	**1.1**	8800	31	**23**	**340**	14000	42	2600	160	< 1.5	**490**	< 1	26	20	130
	5-10 cm	15493	6100	< 0.8	13	60	< 0.5	0.9	7600	28	**25**	**440**	14000	39	2300	150	< 1.5	**580**	< 1	27	19	100
		15494	8100	< 0.8	11	61	< 0.5	< 0.8	12000	36	**24**	**420**	15000	36	2200	190	< 1.5	**550**	**2**	38	25	97
	10-20 cm	15495	7900	< 0.8	13	56	< 0.5	< 0.8	7800	29	17	**290**	14000	24	2400	170	< 1.5	**490**	1	36	25	71
		15496	7800	< 0.8	13	55	< 0.5	< 0.8	7300	29	15	**280**	14000	24	2400	180	< 1.5	**440**	1	35	25	74

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037491 Walter St. (front yard)	0-5 cm	15510	16000	< 0.8	< 5	78	< 0.5	< 0.8	6700	41	8	77	18000	13	3900	270	< 1.5	**86**	< 1	48	37	40
		15511	16000	< 0.8	< 5	86	< 0.5	< 0.8	8200	41	8	79	18000	12	3900	270	< 1.5	**89**	< 1	50	37	40
	5-10 cm	15512	16000	**1.7**	< 5	78	< 0.5	< 0.8	7800	41	9	82	19000	12	3900	290	< 1.5	**91**	< 1	49	37	41
		15513	17000	< 0.8	< 5	86	< 0.5	< 0.8	7800	41	9	**86**	19000	13	3800	270	< 1.5	**95**	< 1	51	38	42
	10-20 cm	15514	15000	< 0.8	7	70	< 0.5	< 0.8	5400	38	9	75	19000	11	3900	260	< 1.5	**83**	< 1	42	36	47
		15515	16000	< 0.8	7	85	< 0.5	< 0.8	6800	39	9	84	20000	11	3900	270	< 1.5	**87**	< 1	46	37	40
5037642 William Ave. (front yard)	0-5 cm	16072	8900	< 0.8	8	58	< 0.5	< 0.8	6900	35	14	**170**	12000	48	3200	200	< 1.5	<u>**260**</u>	< 1	32	26	70
		16073	8500	< 0.8	8	49	< 0.5	< 0.8	8900	39	15	**180**	12000	44	3200	180	< 1.5	<u>**290**</u>	< 1	33	25	63
	5-10 cm	16074	9400	< 0.8	8	43	< 0.5	< 0.8	5500	30	11	**170**	12000	30	2600	170	< 1.5	<u>**220**</u>	< 1	35	27	48
		16075	11000	< 0.8	11	48	< 0.5	< 0.8	7500	31	11	**170**	12000	27	2600	170	< 1.5	<u>**230**</u>	< 1	38	27	43
	10-20 cm	16076	9400	< 0.8	< 5	43	< 0.5	< 0.8	5100	26	10	**140**	11000	27	2500	160	< 1.5	<u>**180**</u>	< 1	33	25	35
		16077	10000	< 0.8	10	46	< 0.5	< 0.8	5600	28	11	**200**	12000	27	2600	170	< 1.5	<u>**230**</u>	< 1	36	27	39
5037643 William Ave. (back yard)	0-5 cm	16078	13000	< 0.8	8	86	< 0.5	< 0.8	9000	34	15	<u>**240**</u>	14000	58	3600	220	< 1.5	<u>**330**</u>	< 1	45	30	90
		16079	12000	< 0.8	9	84	< 0.5	0.9	9000	36	17	<u>**260**</u>	13000	90	3500	210	< 1.5	<u>**380**</u>	1	43	28	97
	5-10 cm	16080	6300	< 0.8	< 5	51	< 0.5	< 0.8	4700	21	9	**140**	6500	32	1700	130	< 1.5	<u>**210**</u>	< 1	27	18	50
		16081	10000	< 0.8	11	83	< 0.5	0.9	9100	34	**27**	<u>**390**</u>	14000	84	3100	230	< 1.5	<u>**680**</u>	1	43	30	120
	10-20 cm	16082	10000	0.9	10	88	< 0.5	< 0.8	8000	31	19	<u>**320**</u>	13000	83	2900	240	< 1.5	<u>**490**</u>	1	42	29	110
		16083	9300	< 0.8	11	110	< 0.5	< 0.8	7900	31	**22**	<u>**430**</u>	13000	**130**	2900	240	< 1.5	<u>**600**</u>	< 1	41	28	140

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit.　NG - no guideline.　All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037638 William Ave. (front yard)	0-5 cm	16048	15000	< 0.8	8	94	< 0.5	< 0.8	4500	40	13	**170**	19000	39	3100	240	< 1.5	**230**	1	47	40	68
		16049	14000	< 0.8	9	85	< 0.5	< 0.8	4200	39	13	**180**	18000	50	2700	250	< 1.5	**230**	1	47	38	69
	5-10 cm	16050	15000	< 0.8	6	78	< 0.5	< 0.8	3400	34	8	**100**	18000	18	2300	230	< 1.5	**140**	< 1	46	38	37
		16051	13000	< 0.8	10	89	< 0.5	< 0.8	3500	35	15	**270**	19000	46	2400	260	< 1.5	**280**	1	45	36	64
	10-20 cm	16052	13000	< 0.8	13	76	< 0.5	< 0.8	2900	32	16	**400**	20000	36	2100	230	< 1.5	**300**	**2**	41	33	42
		16053	11000	< 0.8	16	73	< 0.5	< 0.8	2900	29	**22**	**400**	20000	38	2000	210	< 1.5	**620**	**3**	35	30	59
5037639 William Ave. (back yard)	0-5 cm	16054	11000	< 0.8	13	82	< 0.5	0.9	4800	35	**22**	**380**	18000	80	2600	240	< 1.5	**450**	**2**	45	33	89
		16055	8600	< 0.8	12	59	< 0.5	< 0.8	6600	30	16	**250**	16000	68	3000	200	< 1.5	**340**	**2**	32	29	71
	5-10 cm	16056	16000	< 0.8	**21**	110	< 0.5	< 0.8	5600	40	**22**	**560**	21000	83	3800	300	< 1.5	**490**	**2**	50	39	75
		16057	14000	**1.2**	**18**	90	< 0.5	< 0.8	5400	39	**24**	**550**	21000	120	3100	280	< 1.5	**400**	**2**	47	34	70
	10-20 cm	16058	14000	< 0.8	**19**	140	< 0.5	< 0.8	5600	38	**38**	**870**	25000	100	3100	360	< 1.5	**1100**	**3**	52	34	150
		16059	12000	0.9	**28**	110	< 0.5	< 0.8	5300	35	**31**	**810**	23000	100	3000	300	< 1.5	**940**	**3**	47	33	120
5037640 William Ave. (front yard)	0-5 cm	16060	13000	< 0.8	7	72	< 0.5	< 0.8	9000	34	13	**140**	17000	32	4800	220	< 1.5	**180**	< 1	45	33	53
		16061	12000	0.9	9	65	< 0.5	< 0.8	7800	33	14	**180**	17000	34	4100	220	< 1.5	**220**	1	42	32	58
	5-10 cm	16062	11000	< 0.8	7	44	< 0.5	< 0.8	4600	28	10	**120**	16000	15	3100	170	< 1.5	**160**	1	35	30	35
		16063	7600	< 0.8	8	43	< 0.5	< 0.8	4200	27	12	**140**	15000	19	2700	170	< 1.5	**200**	< 1	31	28	40
	10-20 cm	16064	8700	< 0.8	10	37	< 0.5	< 0.8	3200	26	15	**210**	15000	18	2700	160	< 1.5	**280**	1	26	27	42
		16065	8300	< 0.8	11	36	< 0.5	< 0.8	3200	26	13	**210**	15000	19	2700	160	< 1.5	**250**	1	25	26	30
5037641 William Ave. (back yard)	0-5 cm	16066	9500	< 0.8	10	53	< 0.5	< 0.8	6600	28	15	**250**	15000	57	3500	190	< 1.5	**290**	1	34	28	84
		16067	9600	< 0.8	10	45	< 0.5	< 0.8	4900	27	13	**170**	14000	37	2600	160	< 1.5	**270**	**2**	31	28	58
	5-10 cm	16068	8500	< 0.8	10	36	< 0.5	< 0.8	3400	22	10	**140**	13000	17	2000	130	< 1.5	**210**	1	25	25	35
		16069	9400	< 0.8	7	35	< 0.5	< 0.8	3000	24	8	**110**	13000	12	1900	130	< 1.5	**170**	< 1	29	27	27
	10-20 cm	16070	8900	< 0.8	9	40	< 0.5	< 0.8	2700	25	10	**150**	12000	13	2000	140	< 1.5	**190**	< 1	27	27	27
		16071	9100	< 0.8	6	37	< 0.5	< 0.8	2600	24	8	**130**	10000	9	1900	130	< 1.5	**180**	< 1	26	26	25

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit.   NG - no guideline.   All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037645 William Ave. (front yard)	0-5 cm	16090	9500	< 0.8	5	32	< 0.5	< 0.8	3300	25	5	38	12000	10	1800	140	< 1.5	**65**	< 1	32	26	21
		16091	9700	< 0.8	< 5	31	< 0.5	< 0.8	3100	23	5	30	12000	7	1800	140	< 1.5	**48**	< 1	30	25	17
	5-10 cm	16092	11000	< 0.8	6	39	< 0.5	< 0.8	3400	30	7	64	14000	10	2200	150	< 1.5	**99**	< 1	31	27	22
		16093	10000	< 0.8	7	37	< 0.5	< 0.8	2900	28	6	61	13000	8	2000	140	< 1.5	**79**	< 1	27	25	20
	10-20 cm	16094	11000	< 0.8	6	41	< 0.5	< 0.8	3800	32	8	68	15000	11	2300	160	< 1.5	**110**	< 1	34	28	27
		16095	12000	< 0.8	6	47	< 0.5	< 0.8	3900	33	9	69	15000	10	2500	190	< 1.5	**120**	< 1	36	30	25
5037646 William Ave. (back yard)	0-5 cm	16084	10000	< 0.8	< 5	49	< 0.5	< 0.8	6200	32	8	**100**	11000	14	3400	180	< 1.5	**140**	< 1	35	28	41
		16085	9100	< 0.8	< 5	44	< 0.5	< 0.8	5300	32	9	**100**	13000	15	2900	160	< 1.5	**170**	< 1	32	25	37
	5-10 cm	16086	9700	**2.1**	7	44	< 0.5	< 0.8	3800	28	8	**120**	14000	12	2600	150	< 1.5	**160**	< 1	31	27	26
		16087	9000	< 0.8	7	40	< 0.5	< 0.8	3400	26	7	77	13000	9	2500	140	< 1.5	**130**	< 1	30	25	22
	10-20 cm	16088	9300	< 0.8	6	37	< 0.5	< 0.8	2800	24	6	69	12000	8	2000	140	< 1.5	**85**	< 1	31	25	18
		16089	5900	< 0.8	7	22	< 0.5	< 0.8	1400	18	5	61	9800	7	1600	79	< 1.5	**71**	< 1	11	18	16
5037744 William Ave. (front yard)	0-5 cm	18781	6400	< 0.8	17	38	< 0.5	**1.9**	13000	50	**45**	**650**	18000	70	2400	130	< 1.5	**1200**	**2**	26	21	98
		18782	6500	< 0.8	17	46	< 0.5	**1.8**	9200	46	**36**	**560**	17000	79	2200	130	< 1.5	**930**	**2**	22	21	140
	5-10 cm	18783	7400	< 0.8	**19**	41	< 0.5	< 0.8	6700	23	21	**430**	14000	28	2000	130	< 1.5	**690**	**2**	19	21	50
		18784	7300	< 0.8	**18**	37	< 0.5	< 0.8	6000	24	**22**	**440**	14000	26	2000	130	< 1.5	**670**	**2**	20	22	66
	10-20 cm	18785	10300	< 0.8	13	48	< 0.5	< 0.8	4900	26	13	**270**	14000	17	2000	150	< 1.5	**370**	1	40	26	40
		18786	9900	< 0.8	14	47	< 0.5	< 0.8	4200	25	16	**320**	15000	22	2100	160	< 1.5	**440**	1	33	26	49
5037745 William Ave. (back yard)	0-5 cm	18787	9200	< 0.8	**35**	67	< 0.5	**1.8**	8200	43	**52**	**840**	26000	79	2900	160	< 1.5	**1300**	**2**	39	26	110
		18788	10100	< 0.8	**37**	71	< 0.5	**1.6**	8200	41	**44**	**810**	25000	74	2600	170	< 1.5	**1100**	**3**	41	28	94
	5-10 cm	18789	10700	< 0.8	**38**	63	< 0.5	0.9	5600	30	**33**	**680**	20000	46	2100	170	< 1.5	**990**	**2**	39	28	82
		18790	10500	< 0.8	**27**	55	< 0.5	< 0.8	3900	26	**25**	**480**	17000	33	2000	170	< 1.5	**660**	**2**	37	28	53
	10-20 cm	18791	8400	< 0.8	**22**	52	< 0.5	< 0.8	4300	20	**22**	**450**	15000	33	1800	140	< 1.5	**720**	**2**	26	24	57
		18792	5700	< 0.8	16	41	< 0.5	< 0.8	1800	16	14	**330**	12000	26	1400	90	< 1.5	**450**	**2**	10	17	43

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037746 William Ave. (front yard)	0-5 cm	18793	6900	< 0.8	**33**	69	< 0.5	**2**	5200	41	**55**	**1000**	25000	**130**	2200	160	< 1.5	**1300**	**4**	22	22	150
		18794	6600	< 0.8	**36**	80	< 0.5	**2.3**	7300	45	**59**	**1100**	25000	**150**	2200	160	< 1.5	**1500**	**2**	22	21	**190**
	5-10 cm	18795	7400	< 0.8	17	57	< 0.5	< 0.8	5600	26	**23**	**360**	14000	60	1900	140	< 1.5	**760**	**2**	21	20	84
		18796	8600	< 0.8	**18**	60	< 0.5	< 0.8	5500	34	**23**	**330**	14000	62	2100	170	< 1.5	**760**	**2**	32	25	84
	10-20 cm	18797	5500	< 0.8	< 5	35	< 0.5	< 0.8	2700	21	10	**210**	11000	30	1600	100	< 1.5	**260**	< 1	12	18	34
		18798	7100	< 0.8	10	38	< 0.5	< 0.8	4000	22	9	**180**	11000	24	1800	120	< 1.5	**230**	< 1	25	22	34
5037747 William Ave. (back yard)	0-5 cm	18799	8300	0.9	**29**	68	< 0.5	**1.1**	4000	34	**34**	**660**	21000	100	2200	170	< 1.5	**820**	**3**	34	26	**190**
		18800	10000	< 0.8	**22**	75	< 0.5	1	4500	39	**28**	**530**	19000	91	2300	180	< 1.5	**650**	**3**	40	28	120
	5-10 cm	18801	10000	< 0.8	15	60	< 0.5	< 0.8	4000	31	18	**330**	14000	69	2200	160	< 1.5	**520**	**2**	39	27	110
		18802	11000	< 0.8	14	68	< 0.5	< 0.8	4200	32	16	**300**	15000	57	2200	180	< 1.5	**480**	**2**	41	29	86
	10-20 cm	18803	10000	1	8	64	< 0.5	< 0.8	3700	29	11	**200**	13000	60	2100	160	< 1.5	**280**	< 1	39	28	63
		18804	11000	< 0.8	12	71	< 0.5	< 0.8	4000	32	13	**260**	15000	65	2300	180	< 1.5	**330**	< 1	41	29	75

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037886 Balsam St. (front yard)	0-5 cm	17274	9000	< 0.8	7	42	< 0.5	< 0.8	11000	31	18	**590**	16000	43	3200	180	< 1.5	**500**	**4**	34	27	37
		17275	9300	< 0.8	9	52	< 0.5	**1.3**	13000	35	**29**	**1200**	18000	70	3300	180	< 1.5	**820**	**7**	35	27	55
	5-10 cm	17276	11000	< 0.8	8	63	< 0.5	< 0.8	5100	33	14	**300**	16000	21	3300	200	< 1.5	**350**	**3**	31	29	30
		17277	13000	< 0.8	12	72	< 0.5	< 0.8	5600	40	18	**420**	17000	34	4000	210	< 1.5	**500**	**2**	27	30	65
	10-20 cm	17278	12000	< 0.8	11	62	< 0.5	0.8	5600	44	17	**460**	18000	32	3900	190	< 1.5	**410**	**2**	32	32	53
		17279	13000	< 0.8	10	75	< 0.5	< 0.8	4900	39	14	**350**	17000	28	4100	190	< 1.5	**340**	**2**	31	32	50
5037887 Balsam St. (back yard)	0-5 cm	17268	11000	< 0.8	7	62	< 0.5	< 0.8	5600	35	17	**590**	17000	41	3500	190	< 1.5	**490**	**4**	40	30	53
		17269	13000	< 0.8	14	79	< 0.5	**1.4**	6800	45	**29**	**1100**	20000	62	3800	230	**2.9**	**900**	**6**	44	33	81
	5-10 cm	17270	12000	< 0.8	14	71	< 0.5	**1.1**	6100	45	**23**	**890**	21000	57	3700	210	< 1.5	**730**	**5**	41	33	77
		17271	15000	< 0.8	**28**	95	< 0.5	**1.1**	7400	48	**27**	**910**	21000	83	3900	240	< 1.5	**910**	**5**	45	35	87
	10-20 cm	17272	12000	< 0.8	**28**	94	< 0.5	1	6700	40	21	**630**	18000	58	3300	220	< 1.5	**750**	**4**	44	32	60
		17273	9500	1	**31**	94	< 0.5	1	5900	37	**22**	**760**	17000	79	3400	200	< 1.5	**820**	**4**	29	26	71
5037888 Balsam St. (back yard)	0-5 cm	17280	12000	< 0.8	11	92	< 0.5	**1.1**	5800	39	**22**	**800**	20000	110	4400	240	< 1.5	**590**	**5**	36	33	100
		17281	13000	< 0.8	10	84	< 0.5	**1.3**	6700	41	**24**	**1000**	20000	76	4600	250	< 1.5	**690**	**6**	41	34	93
	5-10 cm	17282	14000	0.9	16	110	< 0.5	**1.2**	6100	41	**22**	**860**	22000	120	4400	250	< 1.5	**650**	**4**	35	35	110
		17283	15000	**1.1**	11	**290**	< 0.5	**1.4**	7100	45	19	**700**	20000	110	4600	270	< 1.5	**500**	**4**	41	35	160
	10-20 cm	17284	14000	**1.7**	**23**	140	< 0.5	**1.3**	6000	44	**36**	**1100**	29000	**270**	4300	250	< 1.5	**910**	**5**	35	35	130
		17285	14000	**1.9**	17	**720**	< 0.5	**1.5**	7100	45	**22**	**750**	22000	**240**	4400	360	1.5	**660**	**3**	48	33	**270**

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037889 Balsam St. (front yard)	0-5 cm	17292	13000	< 0.8	**18**	63	< 0.5	**1.4**	12000	46	**41**	**1700**	25000	95	6600	220	1.6	**1100**	**7**	54	35	93
		17293	12000	< 0.8	**21**	74	< 0.5	**1.8**	10000	52	**45**	**2100**	25000	**140**	6000	210	2.5	**1400**	**7**	48	34	120
	5-10 cm	17294	14000	< 0.8	**20**	79	< 0.5	< 0.8	5100	42	**22**	**700**	22000	76	3700	210	< 1.5	**620**	**3**	40	37	66
		17295	14000	< 0.8	11	74	< 0.5	< 0.8	4700	40	13	**280**	18000	34	3700	210	< 1.5	**330**	**2**	39	36	48
	10-20 cm	17296	17000	< 0.8	**23**	130	< 0.5	< 0.8	6300	53	21	**440**	25000	85	5900	270	< 1.5	**520**	**2**	43	40	71
		17297	15000	**1.1**	**19**	110	< 0.5	< 0.8	6000	46	21	**480**	24000	120	4300	270	< 1.5	**490**	**2**	43	40	77
5037890 Balsam St. (back yard)	0-5 cm	17286	12000	1	**36**	120	< 0.5	**2.8**	15000	54	**64**	**3000**	31000	**200**	7800	200	2.4	**2200**	**9**	42	32	**220**
		17287	15000	< 0.8	**37**	110	< 0.5	**3.2**	17000	62	**71**	**3300**	35000	**220**	8500	230	1.9	**2400**	**11**	46	36	**190**
	5-10 cm	17288	25000	< 0.8	**19**	140	< 0.5	0.9	9300	54	18	**520**	23000	46	5700	260	< 1.5	**540**	**2**	56	43	89
		17289	21000	< 0.8	**18**	120	< 0.5	0.8	8800	51	**22**	**730**	23000	51	5800	250	< 1.5	**640**	**3**	53	41	83
	10-20 cm	17290	20000	< 0.8	13	130	< 0.5	< 0.8	13000	47	15	**350**	22000	66	8200	300	< 1.5	**380**	**2**	60	43	74
		17291	23000	0.9	15	170	0.5	< 0.8	12000	56	21	**460**	25000	**150**	8800	340	< 1.5	**620**	**2**	62	47	92
5037829 Bradley St. (front yard)	0-5 cm	17442	11000	< 0.8	**25**	66	< 0.5	**1.9**	4000	44	**43**	**2400**	20000	81	3200	250	1.8	**1400**	**20**	37	35	78
		17443	11000	< 0.8	15	64	< 0.5	**1.3**	4200	41	**27**	**1200**	17000	42	3200	240	< 1.5	**770**	**9**	42	36	60
	5-10 cm	17444	13000	< 0.8	17	78	< 0.5	< 0.8	4300	45	**22**	**660**	19000	44	3800	230	< 1.5	**650**	**5**	42	38	53
		17445	17000	< 0.8	16	110	< 0.5	< 0.8	5400	51	21	**740**	21000	53	4100	260	< 1.5	**540**	**4**	52	44	58
	10-20 cm	17446	15000	< 0.8	14	120	< 0.5	< 0.8	7800	50	19	**510**	22000	39	6300	310	2	**450**	**3**	54	45	53
		17447	16000	< 0.8	**21**	120	< 0.5	< 0.8	8500	49	19	**740**	22000	50	6100	280	< 1.5	**510**	**4**	57	45	58
5028093 Bradley St. (back yard)	0-5 cm	17906	14000	**1.2**	**52**	92	< 0.5	**2.1**	5100	55	**87**	**4500**	35000	**180**	3900	250	2.1	**2800**	**19**	42	42	140
		17907	13000	**1.2**	**46**	90	< 0.5	**1.7**	4700	51	**78**	**4000**	32000	**160**	3700	230	2	**2400**	**19**	40	39	130
	5-10 cm	17908	20000	< 0.8	**28**	140	< 0.5	1	6700	56	**38**	**1300**	28000	52	5700	320	< 1.5	**1300**	**4**	53	46	110
		17909	18000	< 0.8	**22**	140	< 0.5	0.9	7600	51	**33**	**970**	24000	57	5500	280	< 1.5	**1100**	**3**	54	41	92
	10-20 cm	17910	15000	**1.4**	9	130	< 0.5	< 0.8	9800	48	16	**360**	23000	31	7500	320	< 1.5	**360**	1	58	43	44
		17911	15000	< 0.8	9	120	< 0.5	< 0.8	8900	48	14	**240**	22000	29	6900	320	2.3	**280**	< 1	58	42	42

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037830 Bradley St. (front yard)	0-5 cm	17436	11000	0.9	46	95	< 0.5	2.9	10000	46	58	2700	26000	200	5000	210	1.8	2100	16	40	35	140
		17437	11000	0.9	43	85	< 0.5	2.8	9000	43	56	2800	24000	150	4700	210	1.7	1900	19	35	33	120
	5-10 cm	17438	15000	1.9	58	120	< 0.5	1.8	6800	54	52	2100	29000	190	4100	250	1.5	2000	11	41	42	120
		17439	16000	1.4	54	130	< 0.5	2	6100	56	50	2100	29000	170	4200	250	< 1.5	1800	12	42	43	130
	10-20 cm	17440	15000	1.2	35	120	< 0.5	1.1	5800	52	35	1300	24000	190	4300	280	< 1.5	1400	7	45	44	110
		17441	15000	0.9	43	120	< 0.5	1.3	5700	51	42	1300	25000	120	4200	290	< 1.5	1500	7	41	42	110
5037831 Bradley St. (back yard)	0-5 cm	17430	9600	< 0.8	11	59	< 0.5	1.2	8600	31	16	660	13000	46	3100	260	< 1.5	530	2	44	28	70
		17431	8800	0.8	10	94	< 0.5	1.5	13000	32	20	800	12000	68	3400	450	2.5	670	3	57	24	95
	5-10 cm	17432	12000	1.3	16	77	< 0.5	< 0.8	6600	34	16	600	16000	73	2800	280	< 1.5	520	2	48	33	79
		17433	10000	0.9	14	70	< 0.5	< 0.8	6800	32	14	640	14000	63	2900	260	< 1.5	430	4	40	29	69
	10-20 cm	17434	12000	1	31	100	< 0.5	1.2	7300	36	28	1200	20000	120	3200	280	1.8	970	6	46	36	150
		17435	11000	0.9	27	73	< 0.5	0.8	5800	35	23	900	18000	91	2900	220	< 1.5	780	4	40	34	91
5037784 Church St. (front yard)	0-5 cm	16822	8500	< 0.8	9	57	< 0.5	2.1	27000	25	45	1300	15000	86	14000	220	< 1.5	840	7	32	20	180
		16823	9300	< 0.8	10	58	< 0.5	1.9	20000	25	47	1500	15000	100	10000	230	< 1.5	890	8	33	22	120
	5-10 cm	16824	11000	< 0.8	10	52	< 0.5	< 0.8	6700	25	23	560	16000	42	2700	150	< 1.5	360	2	22	23	58
		16825	10000	< 0.8	8	41	< 0.5	< 0.8	7300	23	20	480	14000	37	2600	140	< 1.5	300	2	23	23	49
	10-20 cm	16826	12000	< 0.8	16	80	< 0.5	< 0.8	3600	33	28	610	21000	81	3100	180	< 1.5	530	3	24	28	62
		16827	17000	< 0.8	18	100	< 0.5	< 0.8	6500	39	29	690	24000	99	3700	220	< 1.5	590	3	42	36	68
5037785 Church St. (back yard)	0-5 cm	16828	13000	< 0.8	< 5	67	< 0.5	< 0.8	14000	33	13	590	16000	28	6600	210	< 1.5	330	3	45	35	91
		16829	12000	< 0.8	5	55	< 0.5	< 0.8	12000	31	13	570	16000	29	6200	200	< 1.5	330	3	41	33	62
	5-10 cm	16830	14000	< 0.8	< 5	68	< 0.5	< 0.8	6000	35	7	180	18000	20	3500	240	< 1.5	110	< 1	45	41	45
		16831	13000	< 0.8	< 5	54	< 0.5	< 0.8	6300	31	8	230	17000	22	3600	220	< 1.5	130	1	40	38	48
	10-20 cm	16832	12000	< 0.8	< 5	49	< 0.5	< 0.8	6000	31	7	150	17000	15	3600	190	< 1.5	97	< 1	33	36	38
		16833	10000	< 0.8	6	49	< 0.5	< 0.8	4600	28	9	270	17000	28	3200	170	< 1.5	180	2	23	33	42

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037786 Church St. (front yard)	0-5 cm	16834	9400	< 0.8	8	45	< 0.5	< 0.8	5600	31	12	300	16000	43	3800	200	< 1.5	250	2	25	29	36
		16835	9400	< 0.8	9	47	< 0.5	< 0.8	5300	30	13	370	16000	41	3700	200	< 1.5	260	2	25	29	38
	5-10 cm	16836	9500	< 0.8	17	66	< 0.5	< 0.8	5300	33	20	660	19000	140	3800	190	< 1.5	560	4	27	30	48
		16837	9900	< 0.8	13	55	< 0.5	< 0.8	4300	30	16	620	18000	97	3300	180	< 1.5	420	4	28	29	42
	10-20 cm	16838	10000	< 0.8	22	70	< 0.5	0.9	3400	33	25	990	20000	140	3000	210	< 1.5	770	5	27	30	70
		16839	11000	< 0.8	18	67	< 0.5	< 0.8	4000	32	17	580	19000	110	3300	200	< 1.5	480	3	35	32	47
5037787 Church St. (back yard)	0-5 cm	16840	9700	< 0.8	14	52	< 0.5	< 0.8	6100	33	17	640	18000	45	4100	210	< 1.5	470	4	24	28	48
		16841	9500	< 0.8	< 5	42	< 0.5	< 0.8	6500	32	9	150	15000	21	4300	210	< 1.5	130	< 1	26	28	34
	5-10 cm	16842	7600	< 0.8	16	56	< 0.5	< 0.8	4500	30	18	750	16000	67	3800	190	< 1.5	550	3	18	25	58
		16843	9400	< 0.8	26	70	< 0.5	0.9	5500	35	27	1200	22000	130	3900	200	< 1.5	900	5	30	29	70
	10-20 cm	16844	15000	< 0.8	32	110	< 0.5	1.1	6000	42	32	1200	25000	140	3700	250	< 1.5	1000	5	52	37	84
		16845	12000	1.1	33	110	< 0.5	1	5200	35	25	930	21000	220	3300	220	< 1.5	910	4	50	33	110
5037451 Cliff St. (back yard)	0-5 cm	15278	9400	< 0.8	26	76	< 0.5	4.1	82000	39	82	2800	29000	170	10000	170	1.8	2500	18	50	24	190
		15279	12000	< 0.8	32	96	< 0.5	4.3	80000	44	86	3200	31000	180	7100	210	1.6	2800	16	52	27	230
	5-10 cm	15280	12000	< 0.8	43	92	< 0.5	1.9	18000	37	49	1500	23000	160	3200	250	< 1.5	2100	7	32	30	130
		15281	12000	< 0.8	39	83	< 0.5	2.3	37000	39	65	2000	26000	120	3700	260	1.8	2300	7	40	31	130
	10-20 cm	15282	17000	< 0.8	43	110	< 0.5	< 0.8	12000	42	33	970	22000	110	2700	240	< 1.5	1800	5	43	37	98
		15283	12000	1.1	34	110	< 0.5	0.9	9500	35	27	650	17000	140	2700	300	< 1.5	1100	1	42	32	120
Table F (results in bold)			NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)			NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037443 Cobalt St. (front yard)	0-5 cm	15225	12000	< 0.8	12	56	< 0.5	1	5100	37	17	**570**	18000	36	3200	170	< 1.5	**440**	**3**	32	28	51
		15226	12000	< 0.8	11	56	< 0.5	**1.1**	6500	38	14	**460**	16000	36	3300	230	< 1.5	**370**	**3**	42	33	56
	5-10 cm	15227	15000	< 0.8	**28**	77	< 0.5	0.9	6900	43	**24**	**700**	23000	68	3500	220	< 1.5	**610**	**3**	47	35	69
		15228	19000	< 0.8	**30**	110	< 0.5	1	6200	48	**26**	**840**	27000	62	4000	230	< 1.5	**770**	**4**	49	40	66
	10-20 cm	15229	17000	**1.1**	**33**	120	< 0.5	< 0.8	4400	42	21	**580**	25000	80	3400	220	< 1.5	**550**	**2**	58	38	61
		15230	18000	**1.1**	**36**	140	< 0.5	**1.1**	6000	51	**32**	**960**	29000	**170**	3800	260	< 1.5	**890**	**4**	60	42	95
5037444 Cobalt St. (back yard)	0-5 cm	15231	14000	< 0.8	12	62	< 0.5	0.8	5400	39	14	**500**	19000	32	3400	200	< 1.5	**360**	**3**	41	33	47
		15232	11000	< 0.8	16	66	< 0.5	**1.3**	7600	40	**26**	**900**	21000	46	4100	210	< 1.5	**720**	**4**	36	32	71
	5-10 cm	15233	10000	< 0.8	14	61	< 0.5	< 0.8	4200	31	15	**430**	18000	30	2900	170	< 1.5	**400**	**2**	26	29	53
		15234	11000	< 0.8	17	66	< 0.5	< 0.8	3600	32	17	**470**	20000	36	3200	170	< 1.5	**470**	**2**	21	28	54
	10-20 cm	15235	9100	< 0.8	**36**	78	< 0.5	< 0.8	3000	30	20	**690**	19000	50	2700	170	< 1.5	**600**	**2**	23	25	81
		15236	11000	< 0.8	**34**	100	< 0.5	0.9	4600	36	**25**	**680**	22000	64	3300	200	< 1.5	**750**	**3**	32	30	78
5037856 Cobalt St. (front yard)	0-5 cm	17094	13000	0.9	17	110	< 0.5	**2.2**	26000	54	**46**	**1700**	27000	**180**	4100	230	< 1.5	**1500**	**10**	50	37	150
		17095	13000	< 0.8	14	100	< 0.5	**1.6**	24000	46	**36**	**1500**	22000	81	3800	220	2.5	**1200**	**10**	50	35	94
	5-10 cm	17096	14000	< 0.8	**25**	100	< 0.5	< 0.8	5900	46	20	**600**	22000	**100**	3800	240	< 1.5	**690**	**5**	45	40	71
		17097	17000	< 0.8	**23**	130	< 0.5	< 0.8	7000	53	**26**	**730**	24000	75	4200	320	< 1.5	**1000**	**5**	51	43	79
	10-20 cm	17098	14000	< 0.8	11	76	< 0.5	< 0.8	5100	35	11	**250**	19000	43	3400	220	< 1.5	**280**	**2**	40	32	33
		17099	14000	1	17	94	< 0.5	< 0.8	7000	37	16	**510**	21000	100	3700	250	< 1.5	**370**	**3**	42	34	41
5037857 Cobalt St. (back yard)	0-5 cm	17088	9600	< 0.8	**20**	68	< 0.5	**1.5**	28000	37	**32**	**1200**	19000	92	3200	190	< 1.5	**920**	**9**	43	28	96
		17089	10000	< 0.8	**24**	85	< 0.5	**2.1**	17000	42	**38**	**1400**	21000	100	3100	200	1.8	**1100**	**9**	40	30	120
	5-10 cm	17090	11000	< 0.8	**22**	71	< 0.5	< 0.8	4000	36	14	**420**	16000	52	3000	230	< 1.5	**400**	**4**	32	32	69
		17091	12000	< 0.8	**18**	71	< 0.5	< 0.8	4100	36	16	**380**	17000	38	3200	230	< 1.5	**420**	**4**	34	33	66
	10-20 cm	17092	11000	< 0.8	**25**	82	< 0.5	< 0.8	5400	37	18	**550**	16000	81	3000	200	< 1.5	**630**	**4**	38	33	65
		17093	18000	0.8	**19**	130	< 0.5	< 0.8	7400	49	**24**	**710**	23000	110	3800	250	< 1.5	**800**	**4**	52	42	78

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037858 Cobalt St. (front yard)	0-5 cm	17106	13000	< 0.8	**19**	79	< 0.5	**2**	36000	39	**34**	**1600**	23000	120	4100	210	1.8	**1100**	**11**	53	31	100
		17107	11000	< 0.8	**19**	75	< 0.5	**1.5**	24000	36	**32**	**1300**	21000	77	3800	210	< 1.5	**1000**	**7**	42	28	87
	5-10 cm	17108	16000	< 0.8	**29**	110	< 0.5	< 0.8	8100	47	**22**	**680**	25000	71	4700	260	< 1.5	**710**	**4**	46	40	60
		17109	16000	< 0.8	13	92	< 0.5	< 0.8	6400	43	13	**250**	22000	19	4900	280	< 1.5	**300**	**2**	48	39	43
	10-20 cm	17110	18000	< 0.8	**33**	130	< 0.5	< 0.8	7500	52	**23**	**590**	24000	77	5300	280	< 1.5	**680**	**3**	51	45	70
		17111	17000	< 0.8	**27**	120	< 0.5	< 0.8	7200	49	20	**610**	22000	74	5100	260	< 1.5	**540**	**4**	49	43	52
5037859 Cobalt St. (back yard)	0-5 cm	17100	12000	< 0.8	**20**	92	< 0.5	**1.6**	14000	40	**31**	**1600**	25000	90	3800	220	2.5	**980**	**4**	43	31	110
		17101	12000	< 0.8	**22**	89	< 0.5	**1.8**	15000	43	**35**	**1500**	27000	110	3900	220	< 1.5	**1100**	**7**	46	34	120
	5-10 cm	17102	13000	**1.2**	**25**	120	< 0.5	0.9	6500	41	**26**	**880**	25000	85	3800	280	< 1.5	**840**	**5**	54	37	120
		17103	13000	< 0.8	**22**	120	< 0.5	**1.1**	6900	39	**22**	**840**	24000	100	3700	270	1.6	**750**	**4**	57	36	130
	10-20 cm	17104	10000	< 0.8	**18**	130	< 0.5	< 0.8	6600	33	17	**510**	19000	85	3300	280	< 1.5	**550**	**4**	60	31	99
		17105	11000	**1.1**	15	110	< 0.5	< 0.8	6200	33	15	**450**	20000	88	3500	250	< 1.5	**490**	**2**	61	34	94
5037860 Cobalt St. (front yard)	0-5 cm	17118	11000	< 0.8	**23**	91	< 0.5	**3.1**	15000	**86**	**40**	**1700**	25000	120	5400	210	2.4	**1300**	**9**	40	31	130
		17119	11000	< 0.8	**37**	110	< 0.5	**3.4**	13000	**93**	**52**	**2100**	32000	**170**	5700	250	2.2	**1600**	**12**	43	35	150
	5-10 cm	17120	12000	**1.2**	**58**	100	< 0.5	**3.7**	11000	**90**	**38**	**1400**	24000	**130**	3500	200	< 1.5	**1400**	**6**	38	31	130
		17121	12000	**1.3**	**48**	100	< 0.5	**3.5**	9800	**72**	**39**	**1300**	22000	110	3400	220	< 1.5	**1500**	**4**	42	32	120
	10-20 cm	17122	11000	**1.3**	**55**	73	< 0.5	0.9	9200	35	19	**510**	14000	39	2400	180	< 1.5	**730**	**2**	35	28	50
		17123	11000	**1.3**	**50**	76	< 0.5	< 0.8	5400	33	17	**450**	14000	35	2700	240	< 1.5	**500**	**2**	34	30	42
5037861 Cobalt St. (back yard)	0-5 cm	17112	11000	< 0.8	**21**	90	< 0.5	**2.7**	19000	60	**35**	**1300**	20000	89	4600	220	< 1.5	**1100**	**9**	47	33	120
		17113	12000	< 0.8	**25**	110	< 0.5	**3.7**	21000	**89**	**48**	**1700**	27000	**220**	4800	240	1.6	**1500**	**11**	49	37	160
	5-10 cm	17114	12000	1	**27**	93	< 0.5	**2.2**	8400	66	**27**	**880**	20000	81	3200	220	< 1.5	**900**	**5**	46	35	100
		17115	14000	0.9	**37**	100	< 0.5	**1.4**	6700	64	21	**680**	19000	100	3500	230	< 1.5	**720**	**4**	48	37	81
	10-20 cm	17116	14000	**1.5**	**67**	120	< 0.5	< 0.8	7800	46	20	**610**	19000	95	3600	250	< 1.5	**680**	**3**	42	34	76
		17117	13000	**1.4**	**50**	120	< 0.5	< 0.8	6900	45	18	**530**	21000	**160**	4100	260	< 1.5	**530**	**2**	44	35	88

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037862 Cobalt St. (front yard)	0-5 cm	17130	10000	< 0.8	16	70	< 0.5	**1.5**	7500	37	**27**	**1000**	19000	**150**	2900	200	< 1.5	**810**	**6**	36	32	88
		17131	9800	< 0.8	13	67	< 0.5	**1.3**	5900	39	**22**	**900**	17000	110	2900	190	< 1.5	**640**	**5**	36	32	72
	5-10 cm	17132	18000	0.9	**36**	210	< 0.5	**2**	15000	61	**42**	**1400**	31000	**150**	4500	280	< 1.5	**1500**	**4**	58	46	130
		17133	18000	**1.1**	**32**	140	< 0.5	**1.9**	12000	58	**39**	**1200**	32000	**150**	4300	260	< 1.5	**1300**	**4**	57	45	130
	10-20 cm	17134	13000	< 0.8	**21**	89	< 0.5	< 0.8	5500	36	17	**550**	18000	120	2600	220	< 1.5	**450**	**2**	38	35	63
		17135	17000	**1.3**	**27**	150	< 0.5	0.8	7400	47	**27**	**920**	26000	**180**	3400	280	< 1.5	**740**	**3**	62	41	92
5037863 Cobalt St. (back yard)	0-5 cm	17124	10000	< 0.8	17	83	< 0.5	**1.2**	6600	38	**25**	**920**	22000	67	3400	250	< 1.5	**690**	**5**	39	32	85
		17125	11000	< 0.8	**20**	93	< 0.5	1	7600	43	**26**	**950**	29000	68	3600	240	< 1.5	**670**	**6**	41	35	76
	5-10 cm	17126	11000	< 0.8	**24**	130	< 0.5	< 0.8	5100	43	18	**590**	33000	82	2900	260	< 1.5	**450**	**4**	46	37	100
		17127	13000	1	**29**	**260**	< 0.5	< 0.8	6300	48	**24**	**670**	40000	**130**	3400	240	< 1.5	**660**	**5**	90	40	120
	10-20 cm	17128	11000	0.8	**31**	140	< 0.5	< 0.8	5200	**85**	**24**	**740**	59000	72	3100	200	< 1.5	**600**	**8**	44	54	100
		17129	8300	< 0.8	9	47	< 0.5	< 0.8	3500	27	11	**240**	13000	15	2700	170	1.7	**340**	**2**	25	28	29
5037436 Collins St. (front yard)	0-5 cm	15191	10000	< 0.8	14	46	< 0.5	< 0.8	6900	27	15	**470**	15000	51	3400	160	< 1.5	**430**	1	34	25	55
		15192	8900	< 0.8	17	49	< 0.5	0.8	7200	25	18	**590**	14000	64	3500	150	< 1.5	**510**	**2**	29	23	66
	5-10 cm	15193	11000	< 0.8	**20**	41	< 0.5	< 0.8	5400	28	14	**420**	16000	36	2600	140	< 1.5	**440**	1	29	25	47
		15194	11000	< 0.8	**38**	58	< 0.5	< 0.8	5300	31	19	**540**	18000	72	3000	160	< 1.5	**570**	1	34	28	59
	10-20 cm	15195	9000	< 0.8	13	34	< 0.5	< 0.8	3600	23	10	**180**	13000	29	2300	140	< 1.5	**240**	< 1	28	24	29
		15196	9400	< 0.8	**36**	49	< 0.5	< 0.8	4100	26	16	**350**	16000	52	2600	160	< 1.5	**400**	< 1	25	25	41
5037437 Collins St. (back yard)	0-5 cm	15197	9800	1	**35**	85	< 0.5	**2**	11000	31	**37**	**1400**	21000	**140**	4700	210	< 1.5	**1200**	**4**	32	25	130
		15198	10000	< 0.8	**36**	85	< 0.5	**1.9**	11000	32	**37**	**1500**	21000	**130**	4300	200	< 1.5	**1200**	**4**	35	26	120
	5-10 cm	15199	15000	0.9	**43**	100	< 0.5	0.9	8300	36	**27**	**830**	23000	**150**	3400	240	< 1.5	**940**	**2**	48	34	110
		15200	15000	**2.1**	**54**	120	< 0.5	**1.1**	9500	40	**32**	**940**	24000	**170**	3500	260	< 1.5	**1000**	**2**	49	36	110
	10-20 cm	15201	16000	**2.2**	**75**	150	< 0.5	1	8400	42	**35**	**890**	26000	**250**	3600	290	< 1.5	**1000**	**2**	54	36	150
		15202	15000	**2.8**	**99**	180	< 0.5	1	7300	42	**44**	**1200**	28000	**320**	3700	310	< 1.5	**1300**	**2**	57	37	**190**

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037880 Collins Dr. (front yard)	0-5 cm	17238	11000	< 0.8	30	95	< 0.5	2.6	14000	59	53	2400	30000	130	5800	210	1.7	1900	16	39	34	250
		17239	11000	< 0.8	40	95	< 0.5	2.8	14000	69	56	2600	32000	140	6800	220	2	1700	21	41	35	180
	5-10 cm	17240	15000	< 0.8	47	100	< 0.5	2.2	11000	51	45	1700	31000	72	4200	200	1.7	1900	12	43	40	110
		17241	17000	1.4	68	120	< 0.5	2.3	8400	66	58	2300	41000	130	5800	220	1.7	2200	14	40	45	130
	10-20 cm	17242	9300	< 0.8	17	57	< 0.5	< 0.8	7100	30	10	180	16000	12	3600	190	< 1.5	350	2	43	32	31
		17243	13000	< 0.8	26	84	< 0.5	0.8	6500	39	20	570	21000	25	3400	180	< 1.5	900	6	40	35	58
5037881 Collins Dr. (back yard)	0-5 cm	17232	18000	< 0.8	57	140	< 0.5	3.7	14000	89	90	3500	49000	160	7400	310	1.6	3200	15	50	51	230
		17233	14000	< 0.8	46	120	< 0.5	3	11000	63	66	2600	37000	120	5800	300	< 1.5	2300	9	46	41	160
	5-10 cm	17234	15000	< 0.8	29	100	< 0.5	1	7900	43	26	750	22000	32	3500	330	1.7	1100	3	45	39	70
		17235	13000	< 0.8	28	100	< 0.5	0.8	6900	39	24	650	20000	27	3300	350	1.6	950	3	37	35	60
	10-20 cm	17236	11000	< 0.8	17	88	< 0.5	< 0.8	5900	34	11	210	17000	31	3100	250	< 1.5	330	2	39	33	42
		17237	11000	< 0.8	17	90	< 0.5	< 0.8	6100	35	11	220	18000	14	3200	310	< 1.5	330	2	32	33	35
5037882 Collins Dr. (front yard)	0-5 cm	17250	17000	0.8	36	110	< 0.5	2.6	11000	61	62	2100	34000	200	4700	250	1.7	1800	12	47	42	160
		17251	13000	< 0.8	6	75	< 0.5	< 0.8	8400	34	10	100	17000	18	4700	280	< 1.5	110	< 1	46	33	44
	5-10 cm	17252	15000	0.9	29	84	< 0.5	1.3	9900	44	36	880	24000	110	3700	200	< 1.5	1400	5	45	37	89
		17253	15000	< 0.8	21	75	< 0.5	0.9	7000	42	25	570	22000	46	3500	220	< 1.5	840	4	44	37	61
	10-20 cm	17254	8300	2.7	5	34	< 0.5	< 0.8	6500	21	6	68	13000	11	2400	140	< 1.5	110	1	31	26	16
		17255	8800	< 0.8	8	38	< 0.5	< 0.8	4000	22	9	150	13000	15	2400	150	< 1.5	210	2	25	25	25
5037883 Collins Dr. (back yard)	0-5 cm	17244	15000	< 0.8	25	120	< 0.5	3.2	9700	53	55	2300	31000	120	3900	200	1.8	1700	13	37	35	140
		17245	19000	< 0.8	26	150	< 0.5	2.9	9700	52	50	2400	29000	120	4000	200	3.6	1500	14	39	33	130
	5-10 cm	17246	19000	0.9	40	140	< 0.5	1.7	11000	61	45	1500	31000	90	4600	210	1.7	1800	8	42	40	100
		17247	17000	1	35	120	< 0.5	1.4	11000	57	41	1200	29000	85	4500	210	< 1.5	1500	6	40	38	93
	10-20 cm	17248	13000	0.8	15	80	< 0.5	< 0.8	7800	30	12	330	15000	29	2600	130	< 1.5	490	2	37	29	32
		17249	15000	< 0.8	16	91	< 0.5	< 0.8	8400	35	13	320	17000	30	3100	160	< 1.5	530	2	46	34	41

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037884 Collins Dr. (front yard)	0-5 cm	17262	11000	< 0.8	**29**	91	< 0.5	**3.8**	12000	56	**72**	**2400**	36000	110	4300	230	1.8	**2400**	**12**	35	33	150
		17263	12000	< 0.8	**36**	96	< 0.5	**3.1**	11000	58	**73**	**2440**	38000	110	4400	230	1.8	**2400**	**12**	35	36	150
	5-10 cm	17264	11000	< 0.8	**25**	73	< 0.5	0.8	11000	34	**25**	**730**	19000	31	2800	180	< 1.5	**1300**	**6**	34	30	54
		17265	9600	< 0.8	**24**	61	< 0.5	< 0.8	7900	29	19	**570**	16000	26	2700	150	< 1.5	**930**	**6**	24	26	41
	10-20 cm	17266	12000	< 0.8	7	59	< 0.5	< 0.8	6100	27	6	85	15000	6	2600	160	< 1.5	**150**	**3**	40	31	16
		17267	8800	< 0.8	6	38	< 0.5	< 0.8	4000	21	7	**94**	13000	7	2300	150	< 1.5	**130**	**2**	30	26	16
5037885 Collins Dr. (back yard)	0-5 cm	17256	10000	< 0.8	15	64	< 0.5	**1.5**	6600	36	**25**	**920**	19000	50	2900	200	< 1.5	**740**	**5**	30	27	110
		17257	9600	< 0.8	15	64	< 0.5	**1.4**	7200	37	**26**	**1000**	18000	53	2900	170	**2.7**	**840**	**6**	26	25	85
	5-10 cm	17258	11000	< 0.8	16	70	< 0.5	< 0.8	8000	41	18	**470**	18000	30	3200	210	< 1.5	**650**	**3**	31	29	67
		17259	12000	< 0.8	**19**	78	< 0.5	1	10000	46	**22**	**660**	19000	41	3200	230	< 1.5	**820**	**4**	36	30	71
	10-20 cm	17260	10000	< 0.8	17	62	< 0.5	< 0.8	9100	35	14	**300**	16000	19	2800	180	< 1.5	**500**	**3**	30	27	41
		17261	10000	< 0.8	11	57	< 0.5	< 0.8	8600	33	13	**300**	15000	19	2600	170	< 1.5	**440**	**3**	29	27	38
5037457 Craig St. (front yard)	0-5 cm	15312	11000	< 0.8	9	69	< 0.5	< 0.8	7300	38	**22**	**550**	18000	77	4400	270	< 1.5	**620**	**5**	48	37	99
		15313	10000	< 0.8	11	60	< 0.5	**1.3**	5800	35	21	**850**	18000	75	3400	260	< 1.5	**570**	**8**	38	33	72
	5-10 cm	15314	9200	< 0.8	11	39	< 0.5	< 0.8	5700	29	15	**580**	16000	42	3200	180	< 1.5	**330**	**6**	31	31	45
		15315	8300	0.8	13	41	< 0.5	< 0.8	4600	27	14	**520**	16000	44	2900	160	< 1.5	**300**	**4**	25	28	44
	10-20 cm	15316	9000	< 0.8	15	48	< 0.5	< 0.8	3300	25	13	**410**	17000	42	2700	160	< 1.5	**290**	**5**	23	28	44
		15317	9400	< 0.8	15	41	< 0.5	< 0.8	3100	26	14	**410**	18000	34	2700	150	< 1.5	**310**	**4**	24	29	42
5037458 Craig St. (back yard)	0-5 cm	15318	8700	< 0.8	9	47	< 0.5	< 0.8	4600	34	17	**520**	18000	70	3700	200	< 1.5	**510**	**2**	30	31	69
		15319	9200	< 0.8	7	55	< 0.5	0.9	5600	40	17	**510**	17000	63	3700	220	< 1.5	**470**	< 1	35	30	76

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037811 Craig St. (front yard)	0-5 cm	17322	11000	< 0.8	**23**	94	< 0.5	**1.9**	6300	43	**40**	**1700**	19000	72	4300	190	1.7	**1300**	**20**	34	30	100
		17323	12000	< 0.8	**24**	88	< 0.5	**1.9**	5800	42	**37**	**1600**	21000	64	3800	190	< 1.5	**1200**	**16**	33	30	82
	5-10 cm	17324	13000	< 0.8	**29**	97	< 0.5	< 0.8	4300	42	**28**	**850**	19000	36	3300	220	< 1.5	**770**	**4**	30	32	69
		17325	16000	< 0.8	**41**	120	< 0.5	**1.2**	6200	51	**32**	**1100**	23000	57	3800	270	< 1.5	**960**	**8**	39	38	84
	10-20 cm	17326	15000	< 0.8	**38**	120	< 0.5	**1.1**	5700	49	**35**	**1100**	23000	51	3400	240	< 1.5	**1000**	**7**	37	36	76
		17327	20000	< 0.8	**46**	150	< 0.5	**1.2**	7200	57	**38**	**1200**	25000	56	4100	270	< 1.5	**1200**	**6**	48	44	89
5028091 Craig St. (back yard)	0-5 cm	17900	13000	< 0.8	12	99	< 0.5	**3**	7900	57	**58**	**2600**	30000	98	4300	230	1.9	**1600**	**17**	49	34	150
		17901	15000	< 0.8	**32**	110	< 0.5	**3.4**	8500	59	**58**	**2600**	30000	98	4600	260	1.9	**1700**	**14**	51	36	140
	5-10 cm	17902	7800	< 0.8	**22**	72	< 0.5	0.9	4700	36	**25**	**750**	15000	44	3100	220	< 1.5	**870**	**5**	29	29	81
		17903	9400	0.9	**37**	110	< 0.5	**1.3**	6500	55	**39**	**930**	20000	64	3400	310	< 1.5	**1400**	**4**	43	37	110
	10-20 cm	17904	7600	1	**44**	100	< 0.5	< 0.8	5400	47	**28**	**620**	16000	72	3000	280	< 1.5	**950**	**4**	41	38	97
		17905	10000	**1.3**	**44**	130	< 0.5	0.9	7300	51	**38**	**740**	19000	57	3400	330	< 1.5	**1400**	**4**	54	40	110
5037809 Craig St. (front yard)	0-5 cm	17310	12000	< 0.8	9	68	< 0.5	**1.9**	10000	44	**32**	**1200**	17000	44	4300	270	< 1.5	**1000**	**8**	53	35	86
		17311	12000	< 0.8	7	73	< 0.5	**2.1**	10000	44	**34**	**1600**	19000	57	4300	250	1.8	**1200**	**10**	48	35	87
	5-10 cm	17312	10000	< 0.8	10	52	< 0.5	< 0.8	6300	34	18	**610**	18000	40	3300	250	< 1.5	**500**	**3**	38	33	49
		17313	10000	< 0.8	11	53	< 0.5	< 0.8	5900	35	18	**590**	17000	40	3400	260	< 1.5	**500**	< 1	38	32	51
	10-20 cm	17314	12000	< 0.8	14	69	< 0.5	< 0.8	4700	35	20	**730**	19000	45	3200	200	< 1.5	**570**	**3**	33	35	59
		17315	12000	< 0.8	**22**	63	< 0.5	< 0.8	5500	33	20	**770**	19000	43	3100	190	< 1.5	**570**	**3**	32	34	58
5028090 Craig St. (front yard)	0-5 cm	17894	11000	< 0.8	13	65	< 0.5	**2.1**	7000	48	**37**	**2000**	19000	**140**	2600	200	< 1.5	**1200**	**16**	52	41	71
		17895	7700	< 0.8	13	48	< 0.5	**1.9**	4400	39	**35**	**1700**	15000	63	2100	180	1.8	**1200**	**13**	31	34	74
	5-10 cm	17896	11000	< 0.8	12	40	< 0.5	< 0.8	2900	29	13	**570**	16000	34	2500	200	< 1.5	**310**	**2**	27	28	31
		17897	11000	< 0.8	13	43	< 0.5	< 0.8	3400	30	14	**600**	16000	42	2600	200	< 1.5	**380**	**3**	30	29	38
	10-20 cm	17898	12000	< 0.8	15	66	< 0.5	0.8	4100	33	**22**	**760**	19000	61	2900	240	< 1.5	**640**	**3**	36	32	56
		17899	14000	< 0.8	15	78	< 0.5	0.9	5400	36	**22**	**730**	20000	62	3100	250	< 1.5	**670**	**3**	46	34	62

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037810 Craig St. (back yard)	0-5 cm	17316	7900	< 0.8	13	47	< 0.5	**1.5**	6100	32	**29**	**1600**	14000	62	3000	160	1.5	**910**	**12**	26	27	75
		17317	8500	< 0.8	15	52	< 0.5	**1.8**	6800	34	**32**	**1620**	15000	73	3100	170	1.8	**1100**	**13**	33	29	77
	5-10 cm	17318	9100	< 0.8	12	61	< 0.5	< 0.8	4800	30	20	**640**	15000	73	2600	210	1.8	**570**	**5**	30	28	71
		17319	9900	< 0.8	11	55	< 0.5	< 0.8	3900	30	16	**490**	14000	54	2300	220	< 1.5	**420**	**4**	28	28	59
	10-20 cm	17320	9800	< 0.8	15	65	< 0.5	< 0.8	4500	30	18	**550**	15000	80	2400	210	< 1.5	**510**	**3**	34	29	68
		17321	9500	< 0.8	15	66	< 0.5	< 0.8	5900	29	20	**630**	15000	87	2600	210	< 1.5	**570**	**3**	34	28	76
5037446 Creighton Rd. (front yard)	0-5 cm	15245	11000	< 0.8	**19**	68	< 0.5	**1.3**	7300	38	**24**	**900**	20000	50	3900	180	< 1.5	**700**	**4**	22	27	67
		15246	11000	< 0.8	**18**	69	< 0.5	**1.1**	7600	39	**25**	**850**	20000	56	4100	190	< 1.5	**670**	**4**	34	30	64
	5-10 cm	15247	13000	1	**67**	110	< 0.5	**1.3**	5700	41	**36**	**1150**	23000	**140**	3100	260	< 1.5	**1000**	**5**	22	30	70
		15248	12000	0.8	**49**	120	< 0.5	**1.5**	5100	41	**30**	**970**	20000	120	3200	240	< 1.5	**780**	**4**	18	27	68
	10-20 cm	15249	9400	**1.6**	**83**	68	< 0.5	< 0.8	3200	25	21	**520**	18000	93	2500	230	< 1.5	**560**	**2**	19	27	52
		15250	15000	**1.6**	**77**	99	< 0.5	< 0.8	6300	44	**25**	**630**	24000	**130**	3300	280	< 1.5	**690**	**3**	42	39	68
5037447 Creighton Rd. (back yard)	0-5 cm	15251	12000	< 0.8	14	64	< 0.5	**1.1**	7700	38	21	**840**	19000	38	3300	200	< 1.5	**560**	**5**	41	31	51
		15252	12000	< 0.8	11	58	< 0.5	0.9	7000	37	19	**710**	18000	35	3200	190	< 1.5	**480**	**4**	43	31	50
	5-10 cm	15253	19000	< 0.8	**18**	99	< 0.5	< 0.8	9200	48	20	**540**	24000	30	4300	280	< 1.5	**520**	**3**	47	39	57
		15254	20000	< 0.8	**20**	120	< 0.5	1	9100	50	**23**	**740**	25000	36	4500	290	< 1.5	**590**	**4**	47	41	62
	10-20 cm	15255	18000	< 0.8	**41**	110	0.5	1	8600	46	**29**	**820**	27000	72	4100	320	< 1.5	**910**	**4**	45	42	85
		15256	15000	< 0.8	**28**	79	< 0.5	< 0.8	4800	37	19	**510**	22000	35	3300	260	< 1.5	**500**	**3**	32	36	54

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028092 Diorite St. (front yard)	0-5 cm	17888	13000	0.8	**38**	110	< 0.5	**3.9**	9900	61	**100**	**4900**	37000	**220**	4000	240	2.2	**2900**	**16**	43	35	160
		17889	14000	< 0.8	**42**	120	< 0.5	**3.8**	9800	63	**100**	**5100**	40000	**230**	4300	240	2.1	**2900**	**16**	43	36	**170**
	5-10 cm	17890	17000	< 0.8	**35**	120	< 0.5	1	6900	50	**34**	**1100**	27000	**130**	4700	340	< 1.5	**1100**	5	45	40	90
		17891	16000	< 0.8	**29**	100	< 0.5	**1.2**	14000	44	**37**	**1200**	27000	99	4300	310	< 1.5	**1300**	5	46	38	92
	10-20 cm	17892	14000	< 0.8	**32**	110	< 0.5	1	7200	45	**46**	**1100**	26000	**130**	3300	230	< 1.5	**1900**	5	52	41	85
		17893	11000	< 0.8	14	54	< 0.5	**1.9**	6700	43	**36**	**2000**	18000	68	2600	180	2.2	**1200**	**10**	84	39	66
5037816 Diorite St. (back yard)	0-5 cm	17352	13000	< 0.8	**26**	110	< 0.5	**3.1**	6400	56	**59**	**3800**	26000	110	4100	230	1.6	**1900**	**18**	39	35	130
		17353	11000	< 0.8	**25**	96	< 0.5	**2.3**	5500	47	**46**	**2600**	22000	100	3600	200	< 1.5	**1400**	**14**	28	30	110
	5-10 cm	17354	13000	< 0.8	**21**	100	< 0.5	< 0.8	4100	46	**25**	**750**	22000	83	4500	250	< 1.5	**660**	4	33	37	73
		17355	12000	< 0.8	17	98	< 0.5	1	4300	45	**30**	**1200**	22000	**150**	4400	240	< 1.5	**920**	5	30	33	110
	10-20 cm	17356	12000	< 0.8	15	100	< 0.5	< 0.8	4100	47	**23**	**680**	23000	65	5000	270	< 1.5	**660**	< 1	34	38	82
		17357	15000	< 0.8	13	120	< 0.5	< 0.8	4500	54	**22**	**680**	24000	58	5500	300	< 1.5	**670**	**3**	36	39	89
5037453 Diorite St. (back yard)	0-5 cm	15284	12000	< 0.8	15	62	< 0.5	**1.7**	5100	37	**35**	**1300**	19000	78	3000	190	< 1.5	**1100**	**6**	37	32	100
		15285	12000	< 0.8	**20**	69	< 0.5	**3**	6100	40	**39**	**1900**	21000	100	3100	210	< 1.5	**1200**	**13**	32	32	140
	5-10 cm	15286	11000	< 0.8	**23**	64	< 0.5	< 0.8	4300	34	**30**	**880**	18000	56	2800	190	< 1.5	**910**	**3**	31	31	77
		15287	12000	< 0.8	**19**	66	< 0.5	**1.6**	5100	35	**32**	**1200**	17000	64	2700	190	< 1.5	**900**	**4**	34	31	97
	10-20 cm	15288	12000	< 0.8	**34**	80	< 0.5	< 0.8	5600	41	**32**	**900**	18000	61	2900	210	< 1.5	**1200**	**5**	36	34	73
		15289	13000	< 0.8	**27**	83	< 0.5	1	8200	38	**28**	**1300**	20000	49	2900	200	< 1.5	**950**	**3**	40	34	79
5037455 Diorite St. (back yard)	0-5 cm	15306	9400	< 0.8	11	32	< 0.5	< 0.8	3000	28	17	**1100**	15000	45	2000	150	< 1.5	**480**	**8**	28	26	40
		15307	11000	< 0.8	15	49	< 0.5	< 0.8	5900	36	**32**	**690**	21000	75	4000	180	< 1.5	**960**	**13**	39	31	62
	5-10 cm	15308	8600	< 0.8	9	35	< 0.5	< 0.8	2200	24	16	**600**	14000	30	2200	150	< 1.5	**440**	**3**	16	24	36
		15309	7500	< 0.8	9	28	< 0.5	< 0.8	2100	21	15	**410**	14000	42	2100	140	< 1.5	**410**	1	15	24	29
	10-20 cm	15310	11000	< 0.8	9	52	< 0.5	< 0.8	3500	31	**26**	**540**	15000	33	2300	210	< 1.5	**920**	1	38	32	48
		15311	9900	< 0.8	11	57	< 0.5	< 0.8	4000	36	**37**	**690**	16000	31	2500	220	< 1.5	**1400**	**2**	39	34	48

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037814 Diorite St. (front yard) same property as 5037455 above	0-5 cm	17340	8200	< 0.8	14	61	< 0.5	**1.7**	6200	36	**36**	**2000**	16000	93	3100	160	1.6	**1200**	**11**	28	25	83
		17341	8800	< 0.8	**20**	68	< 0.5	**1.7**	7200	37	**37**	**2100**	18000	110	3500	170	1.8	**1300**	**13**	32	27	93
	5-10 cm	17342	11000	< 0.8	11	40	< 0.5	< 0.8	3900	31	14	**1000**	15000	50	2400	160	< 1.5	**400**	**7**	30	29	38
		17343	11000	**1.2**	15	46	< 0.5	< 0.8	3800	30	14	**1000**	15000	49	2400	160	< 1.5	**390**	**7**	29	28	43
	10-20 cm	17344	14000	< 0.8	**25**	75	< 0.5	< 0.8	5000	41	**22**	**1000**	21000	**130**	2900	220	< 1.5	**610**	**3**	46	36	58
		17345	15000	**3.9**	**26**	83	< 0.5	< 0.8	5400	42	**26**	**1100**	22000	**130**	3100	230	< 1.5	**730**	**3**	49	38	68
5037815 Diorite St. (back yard) same as 5037455 above	0-5 cm	17346	10000	< 0.8	**19**	45	< 0.5	**1.2**	4100	36	**25**	**1700**	18000	71	2300	170	1.8	**810**	**9**	37	30	56
		17347	12000	< 0.8	**18**	59	< 0.5	**1.3**	5100	40	**28**	**2000**	19000	70	2700	190	1.7	**900**	**13**	44	33	64
	5-10 cm	17348	12000	< 0.8	12	49	< 0.5	< 0.8	4300	34	13	**440**	17000	51	2500	210	< 1.5	**310**	**2**	42	32	39
		17349	11000	< 0.8	15	59	< 0.5	< 0.8	4400	33	17	**560**	20000	120	2600	210	< 1.5	**440**	**3**	41	33	47
	10-20 cm	17350	8100	< 0.8	9	42	< 0.5	< 0.8	3500	28	15	**380**	16000	44	2800	180	< 1.5	**400**	**2**	29	29	37
		17351	7200	< 0.8	9	39	< 0.5	< 0.8	4300	26	**22**	**510**	16000	65	3500	190	< 1.5	**560**	**3**	24	28	41
5037812 Diorite St. (back yard)	0-5 cm	17328	11000	0.8	**51**	90	< 0.5	**2.9**	5900	55	**87**	**4200**	30000	**370**	3600	190	2.4	**2800**	**33**	38	35	**190**
		17329	13000	0.8	**58**	140	< 0.5	**3.8**	7600	64	**110**	**5100**	33000	**320**	3800	220	**3.7**	**3700**	**36**	43	38	**220**
	5-10 cm	17330	11000	**1.8**	**33**	77	< 0.5	< 0.8	4100	38	**36**	**1200**	21000	**160**	2900	220	1.9	**1000**	**9**	39	34	82
		17331	11000	< 0.8	**39**	85	< 0.5	0.9	3800	39	**49**	**1400**	24000	**200**	3000	200	< 1.5	**1700**	**10**	37	36	88
	10-20 cm	17332	8000	< 0.8	14	62	< 0.5	< 0.8	3000	25	17	**590**	17000	**160**	2500	170	< 1.5	**410**	1	27	30	62
		17333	7900	0.9	**21**	59	< 0.5	< 0.8	2600	28	**23**	**850**	18000	**180**	2600	180	< 1.5	**520**	**2**	21	27	65
5037813 Diorite St. (front yard)	0-5 cm	17334	7800	< 0.8	7	45	< 0.5	0.8	5300	30	19	**790**	14000	46	3400	170	< 1.5	**500**	**3**	22	24	62
		17335	8700	< 0.8	9	51	< 0.5	1	4700	33	**23**	**980**	15000	36	3100	180	1.6	**620**	**4**	24	26	62
	5-10 cm	17336	10000	< 0.8	15	71	< 0.5	**1.3**	5100	38	**28**	**1600**	19000	56	3300	190	< 1.5	**670**	**9**	20	27	76
		17337	12000	< 0.8	13	75	< 0.5	0.9	4900	38	**23**	**1200**	18000	47	3400	210	< 1.5	**580**	**6**	31	31	73
	10-20 cm	17338	10000	< 0.8	13	64	< 0.5	< 0.8	4400	33	18	**620**	18000	25	3200	190	< 1.5	**420**	**2**	28	30	59
		17339	11000	< 0.8	14	72	< 0.5	< 0.8	4500	35	17	**700**	20000	30	3300	190	< 1.5	**430**	**2**	30	31	62

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037842 Diorite St. (front yard)	0-5 cm	17010	11000	< 0.8	7	73	< 0.5	< 0.8	8900	37	13	**350**	15000	26	5200	230	< 1.5	**320**	**2**	42	31	63
		17011	11000	< 0.8	< 5	51	< 0.5	1	9900	39	18	**630**	16000	27	5500	230	< 1.5	**540**	< 1	43	32	52
	5-10 cm	17012	9300	< 0.8	13	52	< 0.5	< 0.8	2900	35	14	**390**	17000	21	3100	180	< 1.5	**300**	**2**	15	26	42
		17013	13000	< 0.8	13	66	< 0.5	< 0.8	5800	38	14	**380**	18000	21	3700	220	< 1.5	**300**	**2**	36	34	46
	10-20 cm	17014	16000	< 0.8	**24**	92	< 0.5	< 0.8	5400	43	20	**590**	22000	29	3700	250	< 1.5	**540**	**2**	36	38	57
		17015	19000	0.8	**40**	110	< 0.5	< 0.8	6900	50	**22**	**630**	23000	32	3900	260	< 1.5	**600**	**3**	45	41	58
5037843 Diorite St. (back yard)	0-5 cm	17004	14000	< 0.8	**21**	83	< 0.5	**1.8**	5400	52	**38**	**2100**	23000	63	4100	250	< 1.5	**1000**	**10**	35	37	73
		17005	15000	< 0.8	**22**	90	< 0.5	**2.4**	5800	56	**45**	**2600**	25000	73	4000	260	1.8	**1200**	**12**	38	37	83
	5-10 cm	17006	15000	< 0.8	**22**	99	< 0.5	0.8	5000	46	**24**	**690**	25000	39	4100	240	1.8	**550**	**3**	33	38	71
		17007	15000	0.8	17	93	< 0.5	0.8	5100	46	**23**	**720**	24000	37	4100	240	< 1.5	**510**	**3**	34	37	69
	10-20 cm	17008	15000	< 0.8	**35**	110	< 0.5	< 0.8	5400	42	**25**	**820**	24000	50	3600	250	< 1.5	**730**	**3**	37	36	68
		17009	14000	< 0.8	**30**	88	< 0.5	< 0.8	5100	41	21	**720**	21000	41	3400	230	< 1.5	**650**	**2**	32	34	70
5037805 Domenico St. (front yard)	0-5 cm	16948	13000	< 0.8	7	51	< 0.5	**1.1**	8300	40	**22**	**950**	16000	25	4200	220	< 1.5	**720**	**4**	50	33	48
		16949	9300	< 0.8	9	38	< 0.5	**1.1**	8700	30	**26**	**1200**	14000	26	3600	160	1.5	**890**	**4**	37	26	39
	5-10 cm	16950	11000	< 0.8	11	47	< 0.5	1	9700	31	**26**	**1200**	16000	35	3300	170	< 1.5	**660**	**7**	32	27	41
		16951	9600	< 0.8	8	42	< 0.5	< 0.8	5700	28	15	**610**	14000	21	3200	160	< 1.5	**400**	**4**	26	25	35
	10-20 cm	16952	12000	< 0.8	11	68	< 0.5	< 0.8	6000	35	19	**720**	19000	37	4000	200	< 1.5	**450**	**4**	26	31	45
		16953	12000	< 0.8	12	66	< 0.5	**1.2**	12000	33	**31**	**1400**	19000	41	3600	170	< 1.5	**790**	**6**	29	28	52
5037806 Domenico St. (back yard)	0-5 cm	16954	12000	< 0.8	**35**	86	< 0.5	**5.2**	19000	53	**93**	**5600**	26000	100	3800	180	**3.1**	**3100**	**35**	30	28	120
		16955	9400	< 0.8	**28**	65	< 0.5	**4**	14000	47	**79**	**5000**	22000	94	3400	160	**3.4**	**2500**	**27**	20	23	110
	5-10 cm	16956	15000	< 0.8	**18**	100	< 0.5	0.9	8500	42	**32**	**1100**	22000	48	4500	220	< 1.5	**940**	**4**	32	34	70
		16957	15000	< 0.8	**18**	90	< 0.5	**1.2**	8600	39	**37**	**1300**	20000	40	4200	220	< 1.5	**1100**	**4**	32	32	76
	10-20 cm	16958	12000	< 0.8	10	86	< 0.5	< 0.8	4500	38	17	**400**	23000	58	4600	240	< 1.5	**360**	**2**	28	35	54
		16959	11000	< 0.8	11	77	< 0.5	< 0.8	5200	34	20	**470**	19000	48	4300	210	< 1.5	**610**	**2**	29	32	51

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037807 Domenico St. (back yard)	0-5 cm	16960	9000	< 0.8	9	42	< 0.5	< 0.8	5300	28	12	**360**	13000	31	2300	200	< 1.5	**350**	**2**	29	23	52
		16961	12000	< 0.8	9	54	< 0.5	0.8	7200	35	15	**430**	15000	34	2800	230	< 1.5	**400**	**2**	47	30	56
	5-10 cm	16962	14000	< 0.8	11	68	< 0.5	**1.9**	9100	41	**30**	**1800**	19000	41	3500	230	< 1.5	**800**	**9**	49	33	66
		16963	14000	< 0.8	13	69	< 0.5	0.9	8200	36	**22**	**930**	19000	51	3400	190	< 1.5	**610**	**3**	45	34	55
	10-20 cm	16964	12000	< 0.8	15	68	< 0.5	**1.3**	9000	37	**28**	**1300**	19000	40	3300	190	< 1.5	**770**	**5**	40	32	63
		16965	13000	< 0.8	9	55	< 0.5	1	8600	36	18	**880**	17000	23	3200	210	< 1.5	**440**	**5**	47	30	44
5037808 Domenico St. (back yard)	0-5 cm	16966	14000	< 0.8	**18**	83	< 0.5	**1.5**	5500	39	**36**	**2000**	21000	61	3300	180	< 1.5	**1100**	**12**	41	33	70
		16967	9500	< 0.8	**20**	72	< 0.5	**1.8**	4000	37	**40**	**2000**	19000	71	2900	150	1.6	**1300**	**11**	22	27	84
	5-10 cm	16968	7300	< 0.8	15	48	< 0.5	< 0.8	2800	25	21	**1000**	15000	41	2300	130	1.9	**580**	**5**	18	25	45
		16969	8500	< 0.8	**18**	59	< 0.5	0.9	3200	29	**24**	**1400**	17000	45	2600	140	< 1.5	**680**	**8**	19	27	63
	10-20 cm	16990	6400	< 0.8	9	33	< 0.5	< 0.8	2100	21	12	**460**	12000	82	2300	130	< 1.5	**280**	**2**	15	23	35
		16991	5800	< 0.8	10	31	< 0.5	< 0.8	1800	20	12	**460**	12000	34	2200	120	< 1.5	**290**	**3**	11	22	40
5037440 Evans Rd. (front yard)	0-5 cm	15214	11000	< 0.8	7	41	< 0.5	< 0.8	4500	31	10	**250**	15000	23	2900	200	< 1.5	**230**	1	40	31	38
		15215	11000	< 0.8	8	40	< 0.5	< 0.8	4400	29	13	**370**	16000	29	2600	180	< 1.5	**330**	**2**	36	29	42
	5-10 cm	15216	12000	0.8	**23**	79	< 0.5	< 0.8	5300	40	20	**580**	21000	79	3700	250	< 1.5	**560**	**2**	43	34	84
		15217	12000	0.9	**21**	74	< 0.5	0.9	5800	35	21	**700**	21000	80	3400	230	< 1.5	**640**	**3**	45	33	90
	10-20 cm	15218	12000	**1.7**	**31**	83	< 0.5	< 0.8	5900	37	20	**610**	21000	100	4200	240	< 1.5	**550**	**3**	44	34	80
		15219	12000	**1.9**	**39**	130	< 0.5	**1.3**	5600	41	**31**	**1000**	24000	**170**	3500	250	< 1.5	**910**	**4**	48	34	**180**
5037441 Evans Rd. (back yard)	0-5 cm	15208	9700	0.9	< 5	60	< 0.5	**1.1**	4700	35	17	**750**	15000	51	2400	190	< 1.5	**510**	**4**	35	27	88
		15209	7800	< 0.8	< 5	55	< 0.5	0.9	3200	29	14	**630**	13000	84	2100	150	< 1.5	**420**	**4**	21	23	82
	5-10 cm	15210	9300	**1.1**	10	100	< 0.5	**1.1**	4600	34	**24**	**860**	19000	96	2800	220	< 1.5	**790**	**4**	30	26	130
		15211	9000	0.9	14	100	< 0.5	**1.1**	4400	33	**22**	**860**	18000	**130**	2700	220	< 1.5	**710**	**3**	28	25	140
	10-20 cm	15212	9100	**1.4**	**27**	130	< 0.5	**1.3**	6200	35	**27**	**910**	19000	**140**	3200	260	< 1.5	**890**	**3**	40	26	**180**
		15213	14000	**1.3**	**30**	150	< 0.5	**1.4**	7000	42	**30**	**1000**	24000	**160**	3800	290	< 1.5	**990**	**2**	55	34	**200**

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037788 Evans Rd. (front yard)	0-5 cm	16846	13000	< 0.8	5	48	< 0.5	< 0.8	6500	37	8	79	17000	15	3600	270	< 1.5	**86**	< 1	49	36	34
		16847	15000	< 0.8	< 5	58	< 0.5	< 0.8	7500	43	8	**95**	18000	16	4100	290	< 1.5	**84**	< 1	51	40	36
	5-10 cm	16848	18000	< 0.8	6	80	< 0.5	< 0.8	8700	53	14	**250**	23000	37	5600	330	< 1.5	**160**	< 1	55	44	51
		16849	16000	< 0.8	11	89	< 0.5	< 0.8	7500	49	21	**660**	23000	94	5100	310	< 1.5	**390**	**2**	50	43	70
	10-20 cm	16850	14000	0.8	**22**	87	< 0.5	1	7000	49	**33**	**1300**	27000	**140**	4700	290	< 1.5	**740**	**4**	44	41	120
		16851	14000	< 0.8	**23**	100	< 0.5	< 0.8	5600	45	**32**	**850**	27000	120	5100	310	< 1.5	**710**	**3**	38	39	93
5037789 Evans Rd. (back yard)	0-5 cm	16852	9700	< 0.8	6	28	< 0.5	< 0.8	3300	23	6	**140**	13000	12	2300	160	< 1.5	**100**	**2**	22	26	23
		16853	9400	< 0.8	5	30	< 0.5	< 0.8	3200	24	6	**160**	12000	18	2400	150	< 1.5	**120**	**2**	19	24	26
	5-10 cm	16854	10000	< 0.8	5	33	< 0.5	< 0.8	2900	25	5	59	13000	11	2200	180	< 1.5	**54**	1	24	27	23
		16855	11000	< 0.8	< 5	41	< 0.5	< 0.8	3800	29	7	**97**	14000	17	2500	210	< 1.5	**97**	< 1	38	31	30
	10-20 cm	16856	10000	< 0.8	10	42	< 0.5	< 0.8	3900	26	10	**260**	14000	73	2300	190	< 1.5	**250**	< 1	35	31	41
		16857	12000	< 0.8	10	52	< 0.5	< 0.8	4400	30	10	**290**	16000	32	2600	200	< 1.5	**210**	< 1	41	34	42
5037790 Evans Rd. (front yard)	0-5 cm	16858	11000	< 0.8	9	47	< 0.5	1	7700	32	14	**670**	15000	59	4400	170	< 1.5	**350**	**5**	37	31	68
		16859	11000	**1.4**	9	51	< 0.5	1	7400	34	16	**730**	16000	57	4200	180	< 1.5	**400**	**3**	38	33	74
	5-10 cm	16860	17000	< 0.8	14	99	< 0.5	< 0.8	5100	42	16	**590**	20000	65	3600	190	< 1.5	**350**	1	46	38	61
		16861	20000	< 0.8	17	140	< 0.5	< 0.8	5600	47	20	**740**	22000	95	4100	210	< 1.5	**430**	**2**	48	40	77
	10-20 cm	16862	17000	< 0.8	8	100	< 0.5	< 0.8	5100	44	12	**210**	20000	37	4200	220	< 1.5	**170**	< 1	47	40	45
		16863	13000	< 0.8	15	91	< 0.5	< 0.8	4500	38	13	**270**	19000	120	3800	210	< 1.5	**240**	< 1	47	37	47
5037791 Evans Rd. (back yard)	0-5 cm	16864	14000	0.9	**19**	98	< 0.5	**2.1**	9200	39	**25**	**1300**	20000	**190**	6000	190	< 1.5	**720**	**3**	39	33	160
		16865	14000	< 0.8	12	96	< 0.5	**1.5**	8500	40	**25**	**1200**	20000	96	4900	210	< 1.5	**680**	**2**	43	36	99
	5-10 cm	16866	17000	< 0.8	14	110	< 0.5	0.8	4400	44	14	**400**	20000	100	4100	210	< 1.5	**280**	< 1	45	40	110
		16867	20000	< 0.8	14	130	< 0.5	< 0.8	6000	47	16	**610**	20000	66	4400	230	< 1.5	**370**	< 1	52	42	72
	10-20 cm	16868	14000	< 0.8	7	87	< 0.5	< 0.8	4400	37	9	**160**	16000	50	3500	190	< 1.5	**140**	< 1	49	36	55
		16869	17000	< 0.8	7	110	< 0.5	< 0.8	5000	42	8	**110**	18000	35	3900	210	< 1.5	**120**	< 1	54	39	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037792 Evans Rd. (front yard)	0-5 cm	16870	14000	< 0.8	11	69	< 0.5	< 0.8	5900	35	15	510	18000	56	3200	230	< 1.5	340	2	48	36	62
		16871	13000	< 0.8	25	70	< 0.5	0.9	6400	37	22	850	22000	95	3300	230	< 1.5	650	2	46	37	71
	5-10 cm	16872	12000	1	51	110	< 0.5	1.4	4800	39	42	1700	27000	190	3300	230	< 1.5	1400	3	49	35	120
		16873	10000	0.9	41	98	< 0.5	1.1	4500	34	27	1100	23000	140	3100	260	< 1.5	800	< 1	46	33	120
	10-20 cm	16874	10000	1.1	42	110	< 0.5	1.1	5100	34	29	1000	21000	180	3200	270	< 1.5	750	< 1	46	32	120
		16875	9100	< 0.8	28	81	< 0.5	< 0.8	3500	31	19	560	18000	150	3200	250	< 1.5	510	< 1	37	31	94
5037793 Evans Rd. (back yard)	0-5 cm	16876	8900	1	36	130	< 0.5	2.2	4900	31	36	1800	21000	270	3300	240	< 1.5	1100	< 1	28	25	170
		16877	9600	1.1	35	100	< 0.5	2.6	6600	33	41	2000	24000	230	3500	230	< 1.5	1300	3	35	28	180
	5-10 cm	16878	12000	1.1	42	110	< 0.5	1.4	6500	33	28	1100	22000	230	3100	290	< 1.5	860	1	42	32	150
		16879	10000	1.2	45	98	< 0.5	1.3	4400	32	26	1100	21000	190	2600	250	< 1.5	840	2	36	29	140
	10-20 cm	16880	11000	1.2	48	97	< 0.5	1	4700	33	24	850	20000	190	3000	270	< 1.5	660	< 1	35	30	120
		16881	10000	2	42	110	< 0.5	0.9	6600	32	28	750	20000	240	3100	290	< 1.5	670	< 1	33	29	140
5037794 Evans Rd. (front yard)	0-5 cm	16882	8600	< 0.8	10	55	< 0.5	1.2	7500	26	16	780	14000	36	4500	180	< 1.5	430	1	24	24	54
		16883	9100	< 0.8	10	60	< 0.5	1.3	8400	27	19	940	15000	43	4500	210	< 1.5	540	1	28	25	71
	5-10 cm	16884	12000	< 0.8	7	61	< 0.5	< 0.8	4600	32	8	120	18000	11	3700	190	< 1.5	120	< 1	44	35	26
		16885	12000	< 0.8	8	59	< 0.5	< 0.8	4400	34	8	140	18000	10	3600	190	< 1.5	120	< 1	41	34	26
	10-20 cm	16886	14000	< 0.8	12	77	< 0.5	< 0.8	8200	39	14	320	20000	25	3600	210	< 1.5	350	< 1	45	37	36
		16887	12000	0.8	16	66	< 0.5	< 0.8	5600	33	15	430	19000	32	3500	180	< 1.5	470	< 1	41	33	37
5037795 Evans Rd. (back yard)	0-5 cm	16888	13000	< 0.8	23	88	< 0.5	1.5	7800	38	33	1400	21000	69	3800	200	< 1.5	970	3	44	35	74
		16889	12000	< 0.8	21	87	< 0.5	1.9	8200	42	45	1900	25000	76	3900	190	< 1.5	1400	5	45	34	86
	5-10 cm	16890	12000	< 0.8	27	74	< 0.5	< 0.8	5400	32	19	710	18000	76	2700	160	< 1.5	780	3	41	31	43
		16891	9800	< 0.8	31	61	< 0.5	1	5100	28	22	880	17000	34	2400	130	< 1.5	930	1	31	28	52
	10-20 cm	16892	6800	1.1	10	34	< 0.5	< 0.8	2100	19	8	150	11000	15	2000	120	< 1.5	200	< 1	17	23	24
		16893	7800	< 0.8	12	42	< 0.5	< 0.8	2300	21	10	230	13000	21	2100	140	< 1.5	300	< 1	22	26	36

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037802 Finland St. (front yard)	0-5 cm	16930	12000	< 0.8	**25**	110	< 0.5	**3.5**	15000	52	**65**	**2400**	30000	**140**	6400	210	2	**2100**	**14**	40	33	160
		16931	13000	< 0.8	**28**	110	< 0.5	**3.4**	14000	49	**59**	**2300**	30000	120	6500	200	1.7	**2000**	**13**	39	33	140
	5-10 cm	16932	16000	< 0.8	**43**	100	< 0.5	**2.1**	11000	50	**49**	**1600**	28000	88	3800	200	< 1.5	**2300**	**8**	43	38	85
		16933	17000	< 0.8	**35**	110	< 0.5	**1.8**	10000	47	**40**	**1200**	27000	78	3500	200	1.7	**1800**	**10**	42	39	76
	10-20 cm	16934	11000	< 0.8	10	57	< 0.5	< 0.8	5600	26	10	**240**	13000	17	2800	130	< 1.5	**420**	**2**	23	27	35
		16935	11000	< 0.8	8	45	< 0.5	< 0.8	4600	24	7	**97**	12000	7	2800	150	< 1.5	**220**	1	28	28	25
5037803 Finland St. (back yard)	0-5 cm	16936	14000	< 0.8	**20**	110	< 0.5	**2**	12000	45	**34**	**1400**	24000	90	6600	200	1.9	**1100**	**9**	41	34	140
		16937	15000	< 0.8	**19**	110	< 0.5	**2.1**	11000	47	**31**	**1300**	24000	81	6000	200	1.5	**1000**	**7**	43	35	130
	5-10 cm	16938	17000	0.9	**29**	110	< 0.5	**1.8**	11000	47	**34**	**1300**	25000	82	5400	210	1.5	**1400**	**7**	49	38	100
		16939	18000	0.8	**33**	120	< 0.5	**2**	11000	54	**38**	**1500**	27000	85	5100	200	< 1.5	**1600**	**8**	47	39	110
	10-20 cm	16940	12000	< 0.8	12	63	< 0.5	< 0.8	5800	30	12	**300**	16000	26	3800	160	< 1.5	**380**	**2**	31	30	58
		16941	12000	< 0.8	12	68	< 0.5	< 0.8	6000	31	11	**270**	15000	41	3700	150	< 1.5	**360**	**2**	30	30	44
5037875 Finland St. (front yard)	0-5 cm	17208	11000	< 0.8	14	63	< 0.5	**1.4**	7200	32	**25**	**1200**	19000	49	3900	200	< 1.5	**780**	**6**	36	28	89
		17209	11000	< 0.8	12	72	< 0.5	**1.5**	8400	32	**22**	**1100**	18000	42	4200	220	< 1.5	**720**	**6**	40	28	71
	5-10 cm	17210	9600	< 0.8	9	40	< 0.5	< 0.8	4400	26	9	**210**	14000	16	3300	160	< 1.5	**170**	**2**	30	26	34
		17211	8900	< 0.8	6	33	< 0.5	< 0.8	6000	24	9	**230**	14000	12	4100	150	< 1.5	**200**	1	24	25	25
	10-20 cm	17212	11000	**5.8**	**21**	59	< 0.5	< 0.8	3800	31	16	**380**	18000	32	3400	190	< 1.5	**360**	4	31	29	47
		17213	10000	< 0.8	10	50	< 0.5	< 0.8	3900	31	15	**560**	18000	27	3100	170	< 1.5	**400**	**2**	29	29	43
5037876 Finland St. (back yard)	0-5 cm	17202	12000	< 0.8	9	64	< 0.5	1	8800	34	21	**930**	18000	36	4600	220	< 1.5	**640**	**5**	38	29	53
		17203	12000	< 0.8	9	63	< 0.5	1	7800	34	21	**840**	17000	32	4200	210	< 1.5	**610**	**2**	39	29	51
	5-10 cm	17204	16000	< 0.8	14	94	< 0.5	< 0.8	8600	44	19	**690**	22000	28	5300	240	< 1.5	**450**	**4**	49	37	54
		17205	19000	< 0.8	17	100	< 0.5	0.9	9400	51	**29**	**1100**	25000	38	5300	240	< 1.5	**780**	**3**	49	38	70
	10-20 cm	17206	20000	< 0.8	17	110	< 0.5	0.8	7500	50	**27**	**920**	25000	38	4500	220	< 1.5	**730**	**2**	50	39	58
		17207	21000	< 0.8	**22**	110	< 0.5	0.9	7800	51	**25**	**740**	24000	36	4400	220	1.7	**740**	**2**	47	38	65

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037877 Finland St. (front yard)	0-5 cm	17220	15000	0.9	**28**	130	< 0.5	**3.7**	23000	52	**58**	**2700**	31000	**170**	8300	310	2	**1800**	**12**	66	35	**190**
		17221	11000	**1.8**	**37**	120	< 0.5	**3.6**	18000	46	**69**	**3000**	31000	**190**	6000	260	1.9	**2200**	**15**	46	32	**200**
	5-10 cm	17222	10000	< 0.8	**32**	72	< 0.5	1	6500	34	**32**	**1100**	21000	110	3100	180	< 1.5	**965**	**6**	31	29	84
		17223	8700	0.9	**33**	74	< 0.5	< 0.8	3900	28	**22**	**700**	17000	**132**	2600	160	< 1.5	**708**	**4**	23	24	87
	10-20 cm	17224	8400	**1.4**	**40**	91	< 0.5	< 0.8	2900	28	19	**600**	17000	**230**	2500	200	< 1.5	**590**	**4**	25	25	100
		17225	8500	**1.5**	**44**	99	< 0.5	< 0.8	3200	29	20	**630**	17000	**200**	2400	190	< 1.5	**620**	**4**	26	25	110
5037878 Finland St. (back yard)	0-5 cm	17214	8900	< 0.8	**32**	98	< 0.5	**3.2**	13000	45	**62**	**2800**	32000	**310**	5600	200	2	**1800**	**15**	31	30	**200**
		17215	9300	< 0.8	**37**	90	< 0.5	**3.1**	11000	46	**62**	**3000**	33000	**310**	5900	200	**2.9**	**1900**	**15**	31	30	**210**
	5-10 cm	17216	12000	0.8	**39**	77	< 0.5	0.9	5900	41	**35**	**1100**	27000	**180**	3600	230	< 1.5	**910**	**6**	29	33	110
		17217	11000	< 0.8	**25**	73	< 0.5	< 0.8	3900	34	21	**520**	20000	39	3200	230	< 1.5	**480**	**3**	18	29	81
	10-20 cm	17218	8300	1	**31**	69	< 0.5	< 0.8	2100	27	**22**	**490**	20000	83	2500	160	< 1.5	**470**	1	14	24	66
		17219	8700	**1.2**	**29**	83	< 0.5	< 0.8	2400	26	19	**400**	17000	**140**	2500	190	< 1.5	**470**	**3**	23	26	85
5037879 Finland St. Side	0-5 cm	17226	8600	**1.2**	**45**	130	< 0.5	**1.3**	4800	34	**31**	**1000**	19000	**190**	3200	290	< 1.5	**960**	**7**	37	29	**170**
		17227	15000	**1.2**	**43**	150	< 0.5	**1.1**	6700	45	**30**	**950**	23000	**210**	3700	320	< 1.5	**890**	**5**	58	38	160
	5-10 cm	17228	16000	**1.1**	**44**	160	< 0.5	**1.2**	6300	49	**29**	**1000**	24000	**180**	3500	320	< 1.5	**904**	**5**	60	40	160
		17229	16000	**2**	**50**	180	< 0.5	**1.6**	7100	52	**40**	**1400**	28000	**210**	3800	350	< 1.5	**1270**	**7**	62	42	**170**
	10-20 cm	17230	15000	**2.2**	**56**	200	< 0.5	**1.4**	7300	45	**30**	**860**	23000	**470**	3300	410	< 1.5	**960**	**4**	69	39	**250**
		17231	13000	**2.8**	**51**	210	< 0.5	**1.1**	11000	38	**27**	**790**	21000	**250**	3400	560	< 1.5	**870**	**4**	80	35	**170**

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037821 Jones St. (front yard)	0-5 cm	17382	10000	< 0.8	14	62	< 0.5	**1.7**	8100	39	**26**	**1200**	17000	65	3600	220	< 1.5	**830**	**8**	39	32	71
		17383	14000	< 0.8	12	76	< 0.5	**1.6**	9700	48	**27**	**1100**	21000	59	4400	260	< 1.5	**840**	**6**	52	39	83
	5-10 cm	17384	12000	< 0.8	11	71	< 0.5	**1.2**	9200	42	20	**760**	17000	42	3100	220	< 1.5	**520**	**4**	46	35	54
		17385	12000	< 0.8	10	62	< 0.5	**1.1**	8200	41	17	**700**	17000	40	3000	230	< 1.5	**440**	**5**	48	35	52
	10-20 cm	17386	12000	< 0.8	14	78	< 0.5	0.9	6200	43	20	**680**	17000	44	3000	210	< 1.5	**530**	**3**	46	36	54
		17387	14000	< 0.8	12	81	< 0.5	0.8	6900	44	19	**690**	18000	72	2900	220	1.6	**490**	**3**	45	36	55
5037822 Jones St. (back yard)	0-5 cm	17388	13000	< 0.8	13	79	< 0.5	0.9	7000	44	19	**580**	19000	55	3800	240	< 1.5	**540**	**4**	48	38	67
		17389	9800	< 0.8	15	60	< 0.5	< 0.8	5300	32	21	**670**	18000	71	3400	210	< 1.5	**550**	**3**	35	29	66
	5-10 cm	17390	11000	< 0.8	11	59	< 0.5	0.9	5900	35	15	**560**	16000	45	3100	190	< 1.5	**420**	**3**	31	28	46
		17391	9400	< 0.8	14	53	< 0.5	0.9	5400	30	13	**460**	14000	34	2800	170	< 1.5	**380**	**4**	23	25	50
	10-20 cm	17392	9700	< 0.8	**19**	63	< 0.5	0.8	4800	36	18	**710**	16000	48	2900	160	**2.8**	**480**	**3**	25	26	53
		17393	11000	< 0.8	**19**	67	< 0.5	0.8	5100	35	16	**590**	16000	50	3100	190	< 1.5	**400**	**2**	28	28	48
5037823 Jones St. (back yard)	0-5 cm	17394	9800	< 0.8	10	48	< 0.5	1	16000	32	20	**850**	17000	34	11000	210	< 1.5	**570**	**7**	29	29	44
		17395	10000	< 0.8	13	52	< 0.5	**1.3**	11000	33	**25**	**1100**	20000	43	7700	230	< 1.5	**730**	**13**	32	33	52
	5-10 cm	17396	12000	< 0.8	6	56	< 0.5	< 0.8	13000	33	9	**170**	19000	12	9300	240	< 1.5	**140**	**2**	36	33	30
		17397	11000	< 0.8	6	51	< 0.5	< 0.8	18000	30	10	**170**	17000	11	12000	220	< 1.5	**160**	**2**	33	31	29
	10-20 cm	17398	11000	< 0.8	< 5	59	< 0.5	< 0.8	4100	34	8	**100**	19000	9	4200	240	< 1.5	**96**	1	35	34	27
		17399	11000	< 0.8	< 5	53	< 0.5	< 0.8	7000	32	9	**110**	18000	10	5800	220	< 1.5	**110**	1	31	32	28

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037850 Marconi St. (front yard)	0-5 cm	17058	9700	< 0.8	13	59	< 0.5	**1.9**	8500	52	**27**	**1200**	15000	52	2900	200	1.7	**1100**	**9**	46	29	71
		17059	10000	< 0.8	12	63	< 0.5	**1.9**	8300	50	**33**	**1500**	16000	55	2900	210	2.1	**1100**	**8**	41	28	71
	5-10 cm	17060	11000	< 0.8	**19**	79	< 0.5	**1.1**	12000	33	**35**	**1300**	18000	68	2900	190	< 1.5	**1000**	**5**	40	28	83
		17061	11000	< 0.8	**21**	86	< 0.5	**1.5**	12000	36	**38**	**1600**	19000	64	3000	180	< 1.5	**1100**	**6**	37	28	90
	10-20 cm	17062	12000	< 0.8	**31**	98	< 0.5	**1.3**	12000	35	**35**	**1400**	20000	74	2900	170	< 1.5	**1200**	**5**	33	27	96
		17063	16000	< 0.8	**26**	120	< 0.5	**1.5**	14000	43	**40**	**1900**	22000	100	3400	200	< 1.5	**1200**	**6**	39	31	110
5037851 Marconi St. (back yard)	0-5 cm	17052	12000	< 0.8	**19**	91	< 0.5	**2.5**	8900	54	**41**	**2000**	20000	86	3600	220	1.5	**1500**	**12**	43	31	160
		17053	12000	< 0.8	**18**	94	< 0.5	**2.3**	9500	56	**43**	**2200**	21000	80	3400	210	1.6	**1400**	**11**	44	31	160
	5-10 cm	17054	19000	< 0.8	**34**	140	< 0.5	**1.9**	16000	52	**50**	**2400**	27000	98	3800	260	< 1.5	**1600**	**8**	58	39	**190**
		17055	17000	< 0.8	**37**	130	< 0.5	**1.5**	14000	48	**43**	**2000**	25000	84	3600	240	< 1.5	**1500**	**7**	57	37	**190**
	10-20 cm	17056	12000	**1.1**	**46**	120	< 0.5	**1.1**	8700	36	**35**	**1300**	22000	81	2800	200	< 1.5	**1500**	**5**	52	34	120
		17057	15000	**1.3**	**54**	130	< 0.5	1	9000	41	**39**	**1400**	24000	81	3100	220	< 1.5	**1700**	**6**	58	38	130
5037824 Market St. (front yard)	0-5 cm	17418	12000	< 0.8	**22**	76	< 0.5	**1.9**	15000	44	**36**	**1500**	19000	77	8500	210	< 1.5	**1300**	**9**	38	32	100
		17419	11000	< 0.8	**18**	78	< 0.5	**2.4**	12000	44	**40**	**2000**	21000	97	6500	200	< 1.5	**1400**	**12**	36	31	110
	5-10 cm	17420	14000	0.9	**41**	94	< 0.5	**1.5**	7700	51	**36**	**1200**	23000	72	3900	270	< 1.5	**1400**	**6**	39	36	110
		17421	14000	0.8	**39**	100	< 0.5	**1.9**	8800	54	**43**	**1600**	25000	93	3900	270	< 1.5	**1800**	**9**	41	38	140
	10-20 cm	17422	16000	0.9	**31**	110	< 0.5	< 0.8	7400	48	**27**	**890**	20000	38	3700	280	< 1.5	**880**	**5**	45	39	67
		17423	16000	1	**38**	120	< 0.5	0.8	7200	48	**23**	**840**	20000	51	4000	320	< 1.5	**770**	**4**	48	40	90
5037825 Market St. (back yard)	0-5 cm	17424	12000	< 0.8	6	49	< 0.5	< 0.8	6200	38	12	**370**	15000	19	3100	250	< 1.5	**320**	**3**	49	34	35
		17425	12000	< 0.8	6	60	< 0.5	< 0.8	6800	43	14	**500**	24000	39	3300	250	< 1.5	**370**	**8**	50	38	40
	5-10 cm	17426	13000	< 0.8	16	71	< 0.5	< 0.8	6500	45	18	**890**	29000	57	3300	230	< 1.5	**410**	**7**	49	39	45
		17427	12000	< 0.8	8	64	< 0.5	< 0.8	6300	38	15	**660**	18000	37	3000	220	< 1.5	**370**	**4**	48	34	45
	10-20 cm	17428	14000	**1.4**	**39**	120	< 0.5	**1.2**	12000	45	**31**	**1600**	49000	**140**	4200	210	< 1.5	**1000**	**7**	46	40	94
		17429	15000	0.8	**20**	120	< 0.5	**1.4**	7900	51	**30**	**1400**	28000	95	4200	230	< 1.5	**950**	**3**	49	37	100

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037826 Market St. (front yard)	0-5 cm	17412	14000	**2.1**	**36**	180	< 0.5	**1.8**	7600	50	**39**	**1300**	23000	**410**	3600	280	< 1.5	**1300**	**8**	46	35	**240**
		17413	13000	**1.7**	**41**	180	< 0.5	**2**	7000	46	**36**	**1200**	22000	**370**	3400	260	< 1.5	**1200**	**8**	44	33	**230**
	5-10 cm	17414	13000	**1.5**	**32**	140	< 0.5	**1.8**	8500	47	**41**	**1500**	24000	**260**	3700	250	1.5	**1300**	**8**	44	35	**170**
		17415	13000	**1.8**	**31**	130	< 0.5	**2**	7800	43	**35**	**1500**	23000	**320**	3400	230	< 1.5	**1100**	**8**	43	33	160
	10-20 cm	17416	14000	**3.6**	**38**	130	< 0.5	**1.7**	7100	48	**39**	**1400**	26000	**280**	3600	240	< 1.5	**1300**	**7**	41	37	150
		17417	14000	**2.6**	**40**	130	< 0.5	**1.5**	6700	50	**41**	**1400**	27000	**290**	3800	250	< 1.5	**1400**	**7**	41	38	140
5037778 Mckeen St. (front yard)	0-5 cm	16786	10000	< 0.8	14	62	< 0.5	**1.6**	25000	32	**27**	**1000**	17000	40	15000	180	< 1.5	**880**	**6**	30	25	67
		16787	11000	< 0.8	15	73	< 0.5	**1.9**	20000	36	**35**	**1600**	18000	56	11000	200	< 1.5	**1200**	**9**	37	29	75
	5-10 cm	16788	21000	< 0.8	**20**	120	< 0.5	0.8	13000	59	21	**380**	30000	30	8200	280	< 1.5	**450**	**4**	44	43	52
		16789	19000	< 0.8	**18**	110	< 0.5	0.8	11000	51	21	**440**	25000	26	7000	240	< 1.5	**610**	1	43	39	51
	10-20 cm	16790	13000	< 0.8	13	77	< 0.5	< 0.8	6000	37	15	**270**	19000	19	3700	190	< 1.5	**390**	1	34	32	38
		16791	15000	0.9	14	80	< 0.5	< 0.8	5600	37	15	**320**	19000	**220**	3100	180	< 1.5	**470**	**3**	39	33	37
5037779 Mckeen St. (back yard)	0-5 cm	16792	13000	< 0.8	**18**	79	< 0.5	**2.7**	29000	40	**41**	**2000**	22000	69	16000	200	1.9	**1300**	**10**	43	30	150
		16793	12000	< 0.8	13	74	< 0.5	**2.2**	30000	39	**34**	**1600**	20000	57	17000	180	1.9	**1100**	**11**	36	27	92
	5-10 cm	16794	16000	< 0.8	**23**	99	< 0.5	0.9	9900	51	**22**	**540**	26000	30	6600	220	< 1.5	**700**	**5**	32	39	56
		16795	15000	< 0.8	17	96	< 0.5	1	17000	46	21	**550**	24000	28	10000	210	< 1.5	**640**	**5**	33	35	53
	10-20 cm	16796	12000	< 0.8	16	82	< 0.5	< 0.8	6200	39	17	**430**	20000	21	3700	160	< 1.5	**620**	**4**	27	34	44
		16797	14000	< 0.8	**18**	97	< 0.5	0.8	10000	44	17	**460**	21000	24	4900	170	< 1.5	**640**	**5**	32	36	48

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037776 Mcnevin St. (front yard)	0-5 cm	16774	8000	< 0.8	10	43	< 0.5	< 0.8	7500	28	19	**790**	13000	32	4100	120	< 1.5	**640**	**6**	23	23	45
		16775	8100	< 0.8	10	45	< 0.5	0.9	10000	34	20	**910**	13000	36	5800	130	< 1.5	**700**	**7**	26	23	45
	5-10 cm	16776	8200	< 0.8	14	41	< 0.5	< 0.8	3700	23	17	**630**	14000	24	2100	110	< 1.5	**610**	**5**	17	23	37
		16777	7600	< 0.8	12	44	< 0.5	< 0.8	4300	23	17	**560**	13000	25	2600	130	< 1.5	**590**	**3**	23	26	37
	10-20 cm	16778	8600	< 0.8	17	54	< 0.5	0.9	6000	24	**22**	**830**	14000	32	2200	130	< 1.5	**880**	**4**	26	27	45
		16779	8200	< 0.8	**18**	56	< 0.5	0.9	5800	24	21	**870**	14000	33	2500	120	< 1.5	**830**	**2**	20	24	46
5037777 Mcnevin St. (back yard)	0-5 cm	16780	9000	< 0.8	6	41	< 0.5	< 0.8	6800	32	11	**260**	13000	22	3700	210	< 1.5	**270**	**2**	31	28	36
		16781	8800	< 0.8	6	43	< 0.5	< 0.8	8200	31	12	**260**	13000	25	4000	200	< 1.5	**290**	1	28	27	75
	5-10 cm	16782	7100	< 0.8	13	70	< 0.5	< 0.8	6200	24	16	**520**	12000	38	4100	150	< 1.5	**610**	**3**	28	23	49
		16783	7300	< 0.8	12	51	< 0.5	< 0.8	7600	24	17	**520**	13000	62	3800	160	< 1.5	**660**	**3**	32	24	57
	10-20 cm	16784	6000	< 0.8	8	30	< 0.5	< 0.8	3200	20	10	**200**	11000	19	2400	120	< 1.5	**320**	< 1	20	22	40
		16785	6900	< 0.8	9	38	< 0.5	< 0.8	3800	21	10	**210**	11000	76	2600	140	< 1.5	**320**	**2**	23	23	37
5037864 Nickel St. (front yard)	0-5 cm	17142	9200	< 0.8	16	44	< 0.5	**1.2**	6400	31	**26**	**1300**	15000	41	3300	160	< 1.5	**940**	**5**	24	26	64
		17143	8800	< 0.8	12	41	< 0.5	1	5600	29	**22**	**1200**	14000	41	2900	150	< 1.5	**770**	**5**	23	25	51
	5-10 cm	17144	9500	< 0.8	10	45	< 0.5	< 0.8	3700	27	11	**290**	13000	13	2400	150	< 1.5	**520**	**2**	21	26	36
		17145	8900	< 0.8	10	44	< 0.5	< 0.8	3300	28	12	**310**	13000	16	2500	160	< 1.5	**410**	**2**	21	26	36
	10-20 cm	17146	12000	0.9	**29**	170	< 0.5	< 0.8	4100	44	19	**590**	35000	44	3400	210	< 1.5	**440**	**4**	47	34	63
		17147	6000	< 0.8	8	41	< 0.5	< 0.8	2000	21	7	**190**	11000	24	2300	120	< 1.5	**230**	< 1	11	19	28
5037865 Nickel St. (back yard)	0-5 cm	17136	13000	< 0.8	**19**	92	< 0.5	**2.2**	15000	45	**40**	**2300**	23000	86	6300	230	1.6	**1400**	**9**	47	36	120
		17137	11000	< 0.8	**19**	83	< 0.5	**2.5**	13000	44	**43**	**2400**	22000	77	5700	210	< 1.5	**1400**	**9**	40	31	**210**
	5-10 cm	17138	10000	1	**33**	75	< 0.5	**1.3**	5500	34	**35**	**1400**	20000	66	3000	160	< 1.5	**1500**	**4**	27	29	80
		17139	11000	< 0.8	**36**	92	< 0.5	**1.8**	7100	36	**43**	**1800**	22000	71	3200	170	< 1.5	**1900**	**5**	30	29	110
	10-20 cm	17140	7300	< 0.8	**21**	60	< 0.5	< 0.8	3400	24	15	**490**	13000	45	2300	120	< 1.5	**720**	**2**	22	24	58
		17141	8200	< 0.8	**18**	67	< 0.5	< 0.8	4200	28	14	**490**	14000	43	2700	150	< 1.5	**610**	**2**	25	26	53

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037866 Nickel St. (front yard)	0-5 cm	17154	11000	< 0.8	15	54	< 0.5	1	5700	37	23	1100	15000	41	2500	170	< 1.5	930	4	47	30	49
		17155	8200	< 0.8	19	48	< 0.5	1.3	4200	30	29	1500	14000	50	2200	130	< 1.5	1200	6	23	24	62
	5-10 cm	17156	8200	< 0.8	7	39	< 0.5	< 0.8	3000	23	8	190	8600	10	1700	100	< 1.5	410	2	22	23	27
		17157	6900	< 0.8	5	35	< 0.5	< 0.8	2300	20	5	96	8100	9	1700	84	< 1.5	210	1	11	20	21
	10-20 cm	17158	11000	< 0.8	5	58	< 0.5	< 0.8	4400	33	7	110	13000	10	3400	200	1.6	170	1	31	31	30
		17159	10000	< 0.8	6	60	< 0.5	< 0.8	4100	31	7	120	13000	10	3100	180	< 1.5	210	1	25	29	30
5037867 Nickel St. (back yard)	0-5 cm	17148	8000	< 0.8	10	42	< 0.5	1.1	4000	25	15	870	12000	30	2200	160	< 1.5	480	6	21	23	54
		17149	12000	< 0.8	11	62	< 0.5	1.1	6300	33	18	1000	16000	43	2700	200	< 1.5	600	5	42	30	67
	5-10 cm	17150	15000	< 0.8	13	94	< 0.5	< 0.8	5800	41	13	420	18000	72	3200	240	< 1.5	400	< 1	46	36	65
		17151	15000	< 0.8	15	100	< 0.5	< 0.8	6800	42	17	560	19000	83	3300	240	< 1.5	520	3	46	36	75
	10-20 cm	17152	18000	< 0.8	17	110	< 0.5	< 0.8	7400	48	23	730	22000	72	4000	270	< 1.5	740	4	49	39	71
		17153	19000	< 0.8	11	130	< 0.5	< 0.8	6800	48	15	380	21000	53	4500	280	< 1.5	420	2	53	41	61
5037868 Nickel St. (front yard)	0-5 cm	17166	7500	< 0.8	21	47	< 0.5	1.3	5300	29	32	1900	18000	54	2800	130	< 1.5	1100	8	16	23	69
		17167	9000	< 0.8	29	58	< 0.5	1.4	5300	37	39	2100	22000	66	3000	150	< 1.5	1400	8	22	27	76
	5-10 cm	17168	8800	< 0.8	24	55	< 0.5	< 0.8	3300	28	21	980	16000	33	2500	130	< 1.5	890	4	17	25	53
		17169	10000	< 0.8	23	51	< 0.5	< 0.8	3500	30	19	730	16000	31	2600	140	< 1.5	830	4	21	28	58
	10-20 cm	17170	9000	< 0.8	15	46	< 0.5	< 0.8	3000	24	11	260	12000	18	2200	110	< 1.5	570	2	19	25	34
		17171	12000	< 0.8	14	62	< 0.5	< 0.8	4200	30	13	340	15000	20	2800	150	< 1.5	550	2	33	31	41
5037869 Nickel St. (back yard)	0-5 cm	17160	9200	< 0.8	25	66	< 0.5	2.1	9900	33	43	2800	22000	69	3800	160	< 1.5	1600	10	26	28	100
		17161	9600	< 0.8	24	61	< 0.5	1.6	7300	34	36	2000	21000	58	2800	170	< 1.5	1300	8	27	29	87
	5-10 cm	17162	10000	< 0.8	26	63	< 0.5	0.9	4200	32	26	1200	19000	49	3100	170	< 1.5	1100	6	22	30	69
		17163	9600	< 0.8	27	59	< 0.5	< 0.8	6600	30	21	940	17000	38	2800	170	2	940	4	20	28	64
	10-20 cm	17164	8900	< 0.8	17	59	< 0.5	< 0.8	6900	27	17	610	14000	27	2700	140	< 1.5	790	4	21	26	48
		17165	9300	< 0.8	19	67	< 0.5	< 0.8	9000	28	16	510	17000	34	2800	170	< 1.5	680	4	23	29	64

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037870 Nickel St. (front yard)	0-5 cm	17178	11000	< 0.8	6	50	< 0.5	< 0.8	3100	33	8	**250**	14000	15	2800	140	< 1.5	**210**	**2**	24	28	33
		17179	9800	< 0.8	7	45	< 0.5	< 0.8	3300	31	12	**500**	14000	20	2500	140	< 1.5	**360**	**3**	19	26	41
	5-10 cm	17180	8800	< 0.8	7	39	< 0.5	< 0.8	3300	33	13	**480**	15000	16	3000	140	< 1.5	**360**	**3**	21	29	34
		17181	9700	< 0.8	11	45	< 0.5	1	5300	37	17	**790**	16000	23	2800	150	< 1.5	**630**	**4**	24	27	69
	10-20 cm	17182	9100	< 0.8	13	44	< 0.5	< 0.8	3700	29	15	**620**	14000	20	2400	130	< 1.5	**610**	**3**	19	25	41
		17183	10000	< 0.8	15	54	< 0.5	< 0.8	4600	30	17	**570**	14000	22	2300	130	< 1.5	**880**	**3**	18	23	49
5037871 Nickel St. (back yard)	0-5 cm	17172	13000	< 0.8	12	52	< 0.5	1	7400	37	19	**1100**	18000	36	2900	180	< 1.5	**680**	**5**	45	34	52
		17173	14000	< 0.8	9	55	< 0.5	1	6200	37	18	**1100**	18000	28	3000	180	< 1.5	**590**	**5**	44	33	51
	5-10 cm	17174	14000	< 0.8	**32**	79	< 0.5	**1.7**	8600	47	**43**	**1900**	24000	46	3000	200	< 1.5	**1700**	**6**	44	36	91
		17175	15000	< 0.8	**39**	90	< 0.5	**2.5**	11000	57	**63**	**2800**	30000	78	3400	220	< 1.5	**2600**	**8**	47	38	140
	10-20 cm	17176	11000	< 0.8	**22**	68	< 0.5	0.8	6500	32	**22**	**760**	16000	26	2600	160	< 1.5	**1200**	**4**	31	29	55
		17177	9000	< 0.8	16	60	< 0.5	< 0.8	5500	27	16	**460**	13000	18	2500	130	< 1.5	**930**	**3**	22	25	41
5037449 Oliver Cres. (back yard)	0-5 cm	15264	13000	< 0.8	16	120	< 0.5	**1.6**	4800	39	**27**	**1000**	22000	120	3700	240	< 1.5	**740**	**7**	37	33	100
		15265	12000	< 0.8	**19**	87	< 0.5	1	3700	36	21	**650**	20000	**140**	3000	210	< 1.5	**560**	**5**	38	31	83
	5-10 cm	15266	15000	< 0.8	**27**	130	< 0.5	1	4000	47	**28**	**890**	26000	**200**	3800	270	< 1.5	**740**	**5**	43	37	110
		15267	16000	< 0.8	**21**	120	< 0.5	0.9	4000	46	**22**	**710**	25000	**240**	4100	300	< 1.5	**560**	**5**	43	39	110
	10-20 cm	15268	12000	**2**	**64**	180	< 0.5	**1.6**	5700	43	**40**	**1400**	26000	**430**	3300	280	1.5	**1200**	**6**	45	34	**240**
		15269	11000	**1.9**	**65**	**230**	< 0.5	**1.1**	3500	37	**30**	**900**	22000	**610**	3000	290	< 1.5	**890**	**5**	46	32	**230**

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037854 Oliver St. (front yard)	0-5 cm	17076	15000	0.9	**21**	110	< 0.5	**2.3**	12000	51	**40**	**2000**	23000	**130**	5000	220	< 1.5	**1300**	**10**	45	34	130
		17077	13000	< 0.8	16	82	< 0.5	**2.1**	13000	43	**37**	**1900**	20000	74	4100	210	< 1.5	**1200**	**10**	42	32	110
	5-10 cm	17078	12000	< 0.8	14	81	< 0.5	< 0.8	4300	46	12	**300**	17000	48	3600	200	< 1.5	**310**	**2**	31	33	56
		17079	12000	< 0.8	13	79	< 0.5	< 0.8	4100	40	11	**300**	18000	61	3700	210	< 1.5	**240**	**2**	29	34	59
	10-20 cm	17080	13000	0.8	**19**	150	< 0.5	0.9	5000	43	15	**400**	20000	**200**	4000	260	< 1.5	**380**	**2**	37	36	140
		17081	15000	< 0.8	17	110	< 0.5	< 0.8	5800	47	15	**350**	22000	62	4500	270	< 1.5	**340**	**2**	37	39	71
5037855 Oliver St. (back yard)	0-5 cm	17082	8900	< 0.8	7	46	< 0.5	1	9500	39	**22**	**690**	15000	34	4200	200	< 1.5	**570**	**4**	32	29	89
		17083	9800	< 0.8	10	51	< 0.5	**1.3**	12000	43	**31**	**870**	17000	44	3900	220	< 1.5	**800**	**5**	40	31	79
	5-10 cm	17084	9900	< 0.8	7	53	< 0.5	< 0.8	5300	37	13	**350**	15000	32	3600	200	< 1.5	**270**	**2**	33	32	46
		17085	11000	< 0.8	8	70	< 0.5	< 0.8	5600	41	10	**210**	16000	90	3700	230	< 1.5	**210**	1	34	34	53
	10-20 cm	17086	11000	< 0.8	12	78	< 0.5	< 0.8	5200	41	13	**270**	17000	53	3900	240	< 1.5	**280**	**2**	35	35	54
		17087	12000	< 0.8	15	110	< 0.5	< 0.8	4200	39	12	**230**	17000	110	3700	230	< 1.5	**260**	**2**	34	34	56
5037796 Orford St. (front yard)	0-5 cm	16894	8800	< 0.8	14	40	< 0.5	< 0.8	2800	22	15	**480**	13000	120	2300	110	< 1.5	**330**	< 1	20	26	55
		16895	9000	< 0.8	8	41	< 0.5	< 0.8	3200	25	14	**450**	14000	100	2500	120	< 1.5	**330**	**4**	20	27	51
	5-10 cm	16896	12000	1	**22**	98	< 0.5	< 0.8	3900	37	**25**	**660**	20000	**160**	3100	220	< 1.5	**630**	**5**	32	33	74
		16897	10000	< 0.8	14	63	< 0.5	< 0.8	2900	30	16	**300**	14000	83	2600	160	< 1.5	**320**	**3**	24	29	45
	10-20 cm	16898	13000	**1.4**	**36**	130	< 0.5	1	4600	41	**31**	**780**	21000	**210**	3500	260	< 1.5	**750**	**5**	39	33	98
		16899	11000	**1.2**	**34**	120	< 0.5	< 0.8	3600	38	**28**	**660**	18000	**190**	3300	210	< 1.5	**660**	**4**	27	29	85
5037797 Orford St. (back yard)	0-5 cm	16900	9000	< 0.8	11	49	< 0.5	< 0.8	3700	28	**22**	**590**	17000	44	3000	120	1.6	**450**	**7**	21	26	61
		16901	11000	< 0.8	**20**	69	< 0.5	**1.1**	5800	35	**32**	**890**	21000	86	3400	150	< 1.5	**670**	**9**	32	31	80
	5-10 cm	16902	12000	**1.6**	**39**	120	< 0.5	0.9	3700	38	**33**	**1100**	24000	**140**	3300	150	< 1.5	**750**	**8**	31	31	100
		16903	11000	**2**	**50**	**270**	< 0.5	**1.2**	5100	41	**41**	**1240**	24000	**150**	3600	160	< 1.5	**950**	**10**	33	32	130
	10-20 cm	16904	12000	**1.9**	**43**	130	< 0.5	1	3900	40	**34**	**910**	20000	**220**	3100	180	< 1.5	**830**	**6**	34	30	120
		16905	11000	**1.6**	**44**	110	< 0.5	0.9	4200	35	**34**	**810**	20000	**150**	3100	160	< 1.5	**780**	**6**	37	29	**310**

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037798 Orford St. (front yard)	0-5 cm	16906	13000	< 0.8	< 5	45	< 0.5	< 0.8	5500	31	8	**240**	15000	20	2700	200	< 1.5	**170**	**3**	43	30	33
		16907	12000	< 0.8	< 5	50	< 0.5	< 0.8	5100	31	10	**330**	15000	24	2700	210	< 1.5	**210**	**3**	42	31	35
	5-10 cm	16908	12000	< 0.8	< 5	38	< 0.5	< 0.8	3800	28	5	58	14000	20	2200	200	< 1.5	**55**	1	41	30	23
		16909	10000	< 0.8	< 5	40	< 0.5	< 0.8	3600	26	6	76	13000	19	2400	180	< 1.5	**76**	1	34	28	25
	10-20 cm	16910	16000	< 0.8	7	92	< 0.5	< 0.8	5600	40	13	**260**	19000	69	3800	260	< 1.5	**230**	**2**	46	37	50
		16911	13000	< 0.8	9	93	< 0.5	< 0.8	5600	39	18	**400**	21000	**150**	4000	260	< 1.5	**390**	**3**	44	36	83
5037799 Orford St. (back yard)	0-5 cm	16912	8900	< 0.8	< 5	43	< 0.5	< 0.8	5100	25	10	**290**	12000	34	2400	150	< 1.5	**250**	**3**	27	25	33
		16913	8500	< 0.8	< 5	59	< 0.5	< 0.8	4600	25	10	**320**	12000	37	2400	150	< 1.5	**250**	**3**	24	24	34
	5-10 cm	16914	8900	< 0.8	< 5	61	< 0.5	< 0.8	4100	30	9	**190**	14000	43	3100	180	< 1.5	**140**	**2**	23	27	42
		16915	9700	< 0.8	6	160	< 0.5	< 0.8	4400	30	12	**260**	15000	94	3000	180	< 1.5	**240**	**2**	29	29	48
	10-20 cm	16916	9900	< 0.8	< 5	66	< 0.5	< 0.8	4000	34	13	**270**	16000	68	3900	210	< 1.5	**220**	**2**	27	29	57
		16917	13000	**1.1**	15	120	< 0.5	< 0.8	6200	42	16	**390**	21000	120	5200	260	< 1.5	**320**	**3**	41	37	82
5037800 Orford St. (front yard)	0-5 cm	16918	10000	< 0.8	11	78	< 0.5	**1.7**	5400	35	**26**	**1200**	19000	88	3400	190	1.7	**720**	**6**	28	29	92
		16919	11000	< 0.8	12	84	< 0.5	**2.2**	6700	37	**36**	**1300**	22000	**130**	3500	200	< 1.5	**1000**	**6**	32	31	110
	5-10 cm	16920	11000	**1.3**	**24**	80	< 0.5	**1.2**	5900	41	**35**	**1000**	25000	120	3700	210	< 1.5	**1000**	**4**	27	33	83
		16921	12000	**1.9**	**36**	110	< 0.5	**1.5**	6400	43	**43**	**1100**	25000	**200**	4000	250	< 1.5	**1300**	**4**	37	36	120
	10-20 cm	16922	14000	**1.8**	**22**	110	< 0.5	1	11000	47	**34**	**800**	26000	96	6300	290	< 1.5	**980**	**3**	44	41	74
		16923	15000	**2.5**	**39**	140	< 0.5	< 0.8	8300	42	**27**	**470**	21000	**220**	5100	290	< 1.5	**740**	**2**	54	37	110
5037801 Orford St. (back yard)	0-5 cm	16924	16000	1	17	130	< 0.5	**2.4**	11000	49	**40**	**1700**	25000	**140**	4100	250	< 1.5	**1100**	**8**	49	37	160
		16925	17000	**1.2**	**19**	160	< 0.5	**3**	11000	52	**42**	**1600**	25000	**210**	4100	270	1.6	**1200**	**10**	49	37	**180**
	5-10 cm	16926	16000	**2.5**	**22**	160	< 0.5	**2**	10000	47	**35**	**830**	25000	**260**	3900	320	< 1.5	**890**	**5**	64	40	**210**
		16927	20000	**1.4**	**19**	150	< 0.5	**1.4**	11000	53	**31**	**1000**	27000	**150**	4300	350	< 1.5	**720**	**4**	55	43	150
	10-20 cm	16928	17000	**2.5**	**51**	180	< 0.5	**1.1**	8000	51	**35**	**700**	28000	**400**	4100	340	< 1.5	**670**	**4**	61	44	**270**
		16929	14000	**1.9**	**57**	190	< 0.5	**1.8**	7600	48	**38**	**1100**	29000	**390**	3600	310	< 1.5	**1000**	**6**	51	39	**210**

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037838 Orford St. (front yard)	0-5 cm	17472	13000	< 0.8	22	98	< 0.5	2	8100	42	33	1500	23000	120	4100	240	< 1.5	1000	8	37	33	110
		17473	14000	0.9	27	110	< 0.5	2.2	10000	48	48	1800	28000	130	5500	240	1.8	1300	9	40	35	120
	5-10 cm	17474	13000	< 0.8	24	89	< 0.5	1	6500	44	28	870	22000	70	3500	250	< 1.5	850	4	35	35	94
		17475	14000	< 0.8	34	100	< 0.5	1.1	7100	43	35	1100	25000	97	3800	250	< 1.5	1100	5	35	35	120
	10-20 cm	17476	14000	< 0.8	24	83	< 0.5	< 0.8	7400	42	18	440	20000	68	3800	270	< 1.5	530	2	48	38	73
		17477	12000	1	27	84	< 0.5	< 0.8	7300	39	24	660	21000	70	4000	250	< 1.5	800	3	39	35	96
5037839 Orford St. (back yard)	0-5 cm	17478	14000	1	35	170	< 0.5	3	13000	53	62	2500	32000	160	5300	290	< 1.5	1900	13	71	38	180
		17479	13000	0.9	29	170	< 0.5	3.2	13000	48	62	2700	29000	150	4800	290	< 1.5	1800	14	70	32	170
	5-10 cm	17480	15000	1.1	38	240	< 0.5	1.5	12000	48	37	1200	27000	130	5400	340	< 1.5	1200	6	79	38	150
		17481	15000	1.3	33	230	< 0.5	1.5	12000	49	34	1100	27000	140	5600	350	< 1.5	1100	5	84	37	170
	10-20 cm	17482	15000	1	33	240	< 0.5	0.9	12000	44	22	580	24000	120	6100	360	< 1.5	600	3	84	37	120
		17483	19000	< 0.8	32	260	< 0.5	0.9	13000	52	27	760	26000	95	6200	370	< 1.5	690	3	95	44	130
5037819 Park St. (front yard)	0-5 cm	17370	13000	< 0.8	12	67	< 0.5	< 0.8	8000	44	20	720	18000	60	4300	240	< 1.5	530	3	49	35	57
		17371	10000	< 0.8	12	52	< 0.5	< 0.8	7600	37	21	730	17000	68	4100	220	< 1.5	590	3	40	33	61
	5-10 cm	17372	8800	< 0.8	18	48	< 0.5	< 0.8	5000	33	23	760	18000	130	3500	190	< 1.5	640	3	29	30	69
		17373	9100	< 0.8	22	53	< 0.5	< 0.8	5900	34	27	910	20000	110	3500	200	< 1.5	740	3	27	29	67
	10-20 cm	17374	11000	1	60	85	< 0.5	1.1	5000	42	39	1400	22000	160	3500	200	< 1.5	1300	5	28	30	85
		17375	11000	1.1	74	86	< 0.5	1.1	6300	38	42	1400	23000	220	3400	200	< 1.5	1400	4	27	31	87
5037820 Park St. (back yard)	0-5 cm	17376	8000	< 0.8	7	41	< 0.5	< 0.8	3800	30	12	370	13000	30	3100	170	< 1.5	290	2	18	26	53
		17377	9200	< 0.8	7	46	< 0.5	< 0.8	5400	33	14	400	15000	32	3400	200	< 1.5	320	3	30	30	61
	5-10 cm	17378	8900	< 0.8	< 5	47	< 0.5	< 0.8	3800	31	12	300	16000	50	3400	210	< 1.5	220	2	28	31	56
		17379	9400	< 0.8	10	53	< 0.5	< 0.8	4800	36	16	380	17000	70	3600	230	< 1.5	290	2	30	32	60
	10-20 cm	17380	11000	< 0.8	12	72	< 0.5	< 0.8	5700	33	17	430	19000	52	3700	260	< 1.5	360	2	47	39	69
		17381	8000	< 0.8	11	53	< 0.5	< 0.8	3800	27	12	290	16000	44	3300	210	< 1.5	240	2	28	31	63

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037846 Park St. (front yard)	0-5 cm	17034	12000	< 0.8	**44**	120	< 0.5	**2.2**	7200	53	**71**	**2500**	30000	**390**	3400	220	1.5	**2200**	**14**	40	37	160
		17035	14000	0.8	**52**	110	< 0.5	**2.5**	7700	57	**82**	**2800**	35000	**260**	3800	240	1.6	**2900**	**15**	43	40	150
	5-10 cm	17036	16000	< 0.8	**43**	110	< 0.5	**1.1**	7700	44	**38**	**1100**	24000	100	3400	260	1.6	**1500**	**6**	43	39	98
		17037	18000	0.9	**58**	160	< 0.5	**2.3**	12000	58	**70**	**2000**	32000	**210**	4100	330	< 1.5	**3100**	**10**	49	42	150
	10-20 cm	17038	11000	**1.1**	**38**	150	< 0.5	< 0.8	4900	44	**26**	**790**	23000	**170**	3100	250	< 1.5	**700**	**3**	34	32	60
		17039	14000	**1.1**	**31**	160	< 0.5	< 0.8	5600	48	**30**	**920**	27000	**210**	4000	290	< 1.5	**700**	**3**	38	37	65
5037847 Park St. (back yard)	0-5 cm	17028	11000	< 0.8	**49**	92	< 0.5	**2.5**	5700	46	**65**	**2300**	27000	**230**	3300	210	< 1.5	**2100**	**12**	33	33	140
		17029	12000	< 0.8	**46**	130	< 0.5	**2.4**	5800	47	**57**	**2300**	25000	**400**	3500	250	< 1.5	**1900**	**10**	35	33	**170**
	5-10 cm	17030	14000	< 0.8	**37**	110	< 0.5	**1.1**	6500	47	**31**	**1000**	22000	95	3900	260	< 1.5	**1100**	**5**	41	37	82
		17031	15000	**1.6**	**53**	**230**	< 0.5	**1.4**	6500	57	**46**	**1600**	25000	**330**	4300	310	< 1.5	**1500**	**8**	47	40	120
	10-20 cm	17032	15000	**1.1**	**48**	180	< 0.5	< 0.8	5200	49	**25**	**730**	24000	**180**	3500	290	< 1.5	**590**	**4**	46	39	73
		17033	15000	**1.4**	**50**	150	< 0.5	< 0.8	5100	46	**22**	**600**	21000	**190**	3200	280	< 1.5	**540**	**4**	44	36	62
5037848 Park St. (front yard)	0-5 cm	17046	9500	< 0.8	**25**	55	< 0.5	**1.6**	10000	41	**41**	**1800**	23000	91	5500	220	1.5	**1200**	**9**	34	31	76
		17047	9600	< 0.8	**36**	65	< 0.5	**2.3**	14000	40	**59**	**2500**	26000	75	7100	260	1.7	**1600**	**10**	37	32	140
	5-10 cm	17048	11000	< 0.8	**22**	49	< 0.5	< 0.8	3600	28	13	**430**	16000	17	2400	210	< 1.5	**400**	**2**	33	32	43
		17049	8400	< 0.8	**25**	49	< 0.5	0.8	3500	27	16	**550**	16000	19	2400	230	< 1.5	**610**	**3**	20	27	56
	10-20 cm	17050	9800	< 0.8	11	50	< 0.5	< 0.8	3200	28	8	**150**	16000	12	3000	190	< 1.5	**220**	1	33	31	32
		17051	11000	< 0.8	14	55	< 0.5	< 0.8	3700	30	9	**190**	16000	13	3000	190	1.6	**280**	1	37	33	35
5037849 Park St. (back yard)	0-5 cm	17040	11000	< 0.8	6	53	< 0.5	**1.1**	8700	36	17	**690**	15000	34	4200	220	< 1.5	**500**	**4**	39	29	56
		17041	11000	< 0.8	< 5	53	< 0.5	1	8100	35	16	**590**	15000	33	4000	220	< 1.5	**470**	**4**	41	30	49
	5-10 cm	17042	11000	< 0.8	7	74	< 0.5	< 0.8	4200	31	11	**360**	16000	39	2800	200	< 1.5	**290**	1	36	29	45
		17043	10000	< 0.8	8	49	< 0.5	< 0.8	4100	30	10	**320**	15000	45	2700	210	< 1.5	**250**	**2**	30	28	40
	10-20 cm	17044	10000	< 0.8	7	48	< 0.5	< 0.8	3300	29	10	**290**	15000	26	2400	180	< 1.5	**220**	< 1	30	27	37
		17045	11000	< 0.8	10	56	< 0.5	< 0.8	3800	31	12	**390**	16000	25	2600	200	< 1.5	**310**	**2**	34	29	40

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037852 Park St. (front yard)	0-5 cm	17064	13000	**1.1**	**49**	110	< 0.5	**3.4**	11000	54	**70**	**3100**	34000	110	4200	210	1.8	**2100**	**11**	34	37	140
		17065	14000	0.8	**54**	100	< 0.5	**3**	11000	54	**65**	**2900**	34000	100	4400	210	2	**2100**	**13**	34	37	120
	5-10 cm	17066	14000	**1.4**	**76**	110	< 0.5	**1.4**	7200	44	**48**	**1800**	27000	70	3600	220	< 1.5	**1600**	**7**	34	35	86
		17067	16000	**1.9**	**94**	120	< 0.5	**1.3**	7100	45	**42**	**1600**	25000	56	3500	240	< 1.5	**1400**	**7**	36	36	79
	10-20 cm	17068	14000	**1.3**	**70**	110	< 0.5	< 0.8	5500	43	**25**	**730**	21000	39	4000	250	< 1.5	**800**	**3**	31	35	66
		17069	15000	**1.4**	**60**	120	< 0.5	< 0.8	5300	51	19	**340**	24000	38	5400	310	1.5	**470**	**2**	37	40	52
5037853 Park St. (side yard)	0-5 cm	17070	12000	< 0.8	**35**	94	< 0.5	**2.4**	9000	46	**54**	**2500**	29000	100	4200	220	2.2	**1600**	**12**	30	32	110
		17071	15000	< 0.8	**34**	100	< 0.5	**2.3**	9500	53	**52**	**2300**	29000	92	4600	250	< 1.5	**1500**	**15**	45	38	110
	5-10 cm	17072	19000	0.9	**50**	130	< 0.5	**1.4**	8100	51	**39**	**1400**	27000	69	4300	260	< 1.5	**1300**	**6**	44	41	87
		17073	19000	< 0.8	**37**	130	< 0.5	**1.2**	7300	51	**30**	**1100**	25000	54	4200	270	< 1.5	**950**	**5**	48	41	88
	10-20 cm	17074	20000	**1.5**	**60**	140	< 0.5	< 0.8	6400	49	21	**580**	23000	51	4300	270	< 1.5	**540**	**3**	51	41	70
		17075	19000	**1.2**	**52**	140	< 0.5	0.8	6500	48	**24**	**780**	23000	59	4100	280	< 1.5	**710**	**3**	50	42	76
5037780 Peter St. (front yard)	0-5 cm	16798	11000	< 0.8	**18**	75	< 0.5	**1.6**	7300	35	**30**	**1300**	20000	**150**	2500	180	< 1.5	**950**	**8**	28	28	100
		16799	12000	< 0.8	**18**	89	< 0.5	**1.8**	6700	43	**33**	**1600**	21000	**270**	3000	210	1.8	**1100**	**10**	36	33	110
	5-10 cm	16800	14000	< 0.8	**23**	92	< 0.5	< 0.8	4800	37	19	**590**	19000	**140**	2700	170	< 1.5	**680**	**4**	31	32	68
		16801	14000	< 0.8	**27**	88	< 0.5	1	6200	38	**22**	**690**	20000	120	2700	190	< 1.5	**770**	**5**	33	33	81
	10-20 cm	16802	12000	0.9	**28**	83	< 0.5	< 0.8	4000	34	19	**580**	19000	78	2500	160	< 1.5	**600**	**5**	24	32	53
		16803	13000	**1.1**	**34**	84	< 0.5	< 0.8	4300	34	21	**670**	21000	120	2600	170	1.5	**690**	**5**	27	32	71
5037781 Peter St. (back yard)	0-5 cm	16804	12000	< 0.8	14	69	< 0.5	**1.1**	6500	40	**22**	**790**	19000	80	3400	240	< 1.5	**630**	**5**	38	34	78
		16805	15000	< 0.8	9	72	< 0.5	< 0.8	7800	44	14	**390**	19000	41	4000	280	< 1.5	**330**	**3**	52	40	53
	5-10 cm	16806	16000	< 0.8	**26**	98	< 0.5	0.9	6100	41	**28**	**870**	22000	110	3200	210	< 1.5	**920**	**5**	46	38	82
		16807	16000	< 0.8	**27**	100	< 0.5	1	6900	41	**27**	**890**	22000	110	3400	220	< 1.5	**880**	**5**	46	38	94
	10-20 cm	16808	16000	**3**	**32**	110	< 0.5	< 0.8	5700	40	**24**	**840**	22000	**300**	3000	200	< 1.5	**850**	**5**	45	36	80
		16809	15000	0.9	**26**	110	< 0.5	< 0.8	4800	39	**22**	**700**	20000	**270**	3100	210	1.8	**670**	**4**	45	36	88

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037782 Peter St. (front yard)	0-5 cm	16810	13000	< 0.8	7	61	< 0.5	0.8	7200	38	13	**420**	16000	45	3600	220	< 1.5	**330**	**4**	51	33	46
		16811	10000	< 0.8	**25**	43	< 0.5	1	6700	28	16	**570**	14000	69	3500	160	< 1.5	**470**	**4**	38	26	52
	5-10 cm	16812	7800	< 0.8	16	41	< 0.5	0.9	4100	27	**23**	**930**	18000	110	2800	130	< 1.5	**650**	**5**	21	24	66
		16813	9300	< 0.8	16	56	< 0.5	**1.3**	6300	35	**27**	**1300**	19000	**220**	3200	150	< 1.5	**780**	**5**	23	24	100
	10-20 cm	16814	8900	0.8	**29**	58	< 0.5	1	5400	30	**28**	**940**	21000	**190**	2800	160	< 1.5	**1000**	**3**	20	25	83
		16815	10000	< 0.8	**32**	68	< 0.5	**1.3**	5900	30	**32**	**1100**	21000	**200**	2900	170	< 1.5	**1100**	**4**	23	27	100
5037783 Peter St. (back yard)	0-5 cm	16816	7900	< 0.8	7	53	< 0.5	< 0.8	3900	22	13	**440**	11000	58	2300	130	< 1.5	**310**	**2**	17	19	57
		16817	8100	< 0.8	< 5	33	< 0.5	< 0.8	3200	20	8	**160**	11000	19	2100	130	< 1.5	**120**	< 1	20	21	28
	5-10 cm	16818	10000	< 0.8	15	81	< 0.5	0.9	6500	28	19	**670**	16000	100	2600	170	< 1.5	**490**	**2**	24	24	85
		16819	9700	**4.9**	10	76	< 0.5	0.9	4400	28	16	**610**	15000	88	2700	180	< 1.5	**400**	**3**	24	24	77
	10-20 cm	16820	11000	**1.1**	**22**	120	< 0.5	1	6600	30	**24**	**850**	19000	**180**	3000	210	< 1.5	**700**	**3**	32	27	130
		16821	10000	**1.1**	**26**	140	< 0.5	0.9	4800	31	21	**830**	20000	**180**	3100	210	< 1.5	**600**	**3**	34	28	120
5037832 Power St. (front yard)	0-5 cm	17448	12000	< 0.8	**21**	110	< 0.5	**2.5**	16000	70	**75**	**2100**	27000	**150**	5300	260	2	**2200**	**12**	53	39	**170**
		17449	11000	1	**25**	100	< 0.5	**2.8**	21000	64	**78**	**2600**	30000	**170**	4400	230	1.5	**2300**	**12**	45	33	**170**
	5-10 cm	17450	13000	1	**30**	83	< 0.5	**1.2**	22000	50	**53**	**1400**	28000	**160**	4100	330	< 1.5	**1600**	**6**	49	39	110
		17451	11000	**1.5**	**42**	110	< 0.5	**1.7**	19000	46	**54**	**1800**	28000	**270**	4100	300	< 1.5	**1800**	**8**	37	34	130
	10-20 cm	17452	18000	1	**37**	130	< 0.5	< 0.8	8400	54	**23**	**540**	25000	110	5500	400	< 1.5	**600**	**2**	50	45	71
		17453	14000	**1.6**	**41**	130	< 0.5	0.9	11000	45	**34**	**920**	24000	**150**	4100	360	< 1.5	**1100**	**4**	50	40	91
5037833 Power St. (back yard)	0-5 cm	17454	9800	< 0.8	16	81	< 0.5	**2.2**	15000	54	**41**	**1400**	20000	82	3900	220	< 1.5	**1200**	**7**	44	35	110
		17455	11000	< 0.8	**20**	86	< 0.5	**2.1**	17000	54	**46**	**1700**	24000	110	4600	230	< 1.5	**1300**	**8**	41	31	140
	5-10 cm	17456	14000	< 0.8	**29**	93	< 0.5	**1.2**	14000	47	**31**	**920**	23000	72	3700	240	< 1.5	**970**	**4**	50	36	95
		17457	14000	0.9	**22**	100	< 0.5	< 0.8	6600	41	17	**480**	19000	63	3400	220	< 1.5	**470**	**3**	47	36	70
	10-20 cm	17458	14000	0.9	**24**	150	< 0.5	< 0.8	6600	42	15	**350**	20000	91	3700	290	< 1.5	**410**	**2**	62	36	89
		17459	13000	**1.2**	**29**	95	< 0.5	0.8	12000	41	**29**	**860**	21000	120	3500	240	< 1.5	**980**	**4**	45	34	91

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037834 Power St. (front yard)	0-5 cm	17484	11000	< 0.8	14	72	< 0.5	0.9	6200	33	**23**	**880**	16000	64	2600	170	< 1.5	**700**	**6**	43	28	56
		17485	11000	< 0.8	13	70	< 0.5	**1.2**	6300	33	**23**	**940**	16000	80	2600	160	< 1.5	**690**	**6**	42	28	74
	5-10 cm	17486	12000	< 0.8	12	58	< 0.5	< 0.8	5100	31	15	**400**	15000	58	2300	160	< 1.5	**390**	**3**	41	28	42
		17487	11000	< 0.8	12	50	< 0.5	< 0.8	5000	28	15	**420**	14000	51	2300	150	< 1.5	**400**	**3**	39	27	41
	10-20 cm	17488	14000	< 0.8	**22**	85	< 0.5	< 0.8	5100	39	**22**	**540**	19000	76	2900	200	< 1.5	**570**	**4**	36	33	91
		17489	15000	< 0.8	**21**	93	< 0.5	< 0.8	5500	45	**27**	**610**	22000	100	3700	210	< 1.5	**650**	**3**	37	35	98
5037835 Power St. (back yard)	0-5 cm	17490	9400	< 0.8	10	49	< 0.5	< 0.8	4500	28	12	**410**	13000	30	2400	170	< 1.5	**290**	**3**	33	27	50
		17491	9800	< 0.8	9	50	< 0.5	0.9	5000	30	12	**460**	13000	62	2500	170	< 1.5	**300**	**3**	37	28	56
	5-10 cm	17492	10000	< 0.8	7	48	< 0.5	< 0.8	4000	29	9	190	14000	30	2400	180	< 1.5	**170**	**2**	36	29	45
		17493	9800	< 0.8	10	44	< 0.5	< 0.8	3600	27	9	**230**	13000	28	2100	160	< 1.5	**200**	**2**	32	28	44
	10-20 cm	17494	12000	< 0.8	12	76	< 0.5	< 0.8	4400	34	12	**240**	15000	64	2800	180	< 1.5	**270**	**2**	32	30	82
		17495	12000	< 0.8	12	68	< 0.5	< 0.8	4400	33	13	**300**	16000	49	2800	180	< 1.5	**310**	**2**	32	30	85
5037836 Power St. (front yard)	0-5 cm	17460	10000	< 0.8	12	58	< 0.5	0.9	8800	36	**24**	**850**	15000	52	4200	220	< 1.5	**630**	**6**	41	29	61
		17461	12000	< 0.8	10	56	< 0.5	< 0.8	8200	37	21	**670**	17000	43	3500	240	< 1.5	**550**	**4**	48	32	68
	5-10 cm	17462	15000	< 0.8	11	69	< 0.5	< 0.8	8100	40	17	**400**	19000	35	3300	260	< 1.5	**400**	**3**	47	36	47
		17463	13000	< 0.8	9	53	< 0.5	< 0.8	6100	34	12	**250**	17000	28	2800	250	< 1.5	**270**	**2**	43	33	39
	10-20 cm	17464	15000	< 0.8	**28**	120	< 0.5	0.9	9200	52	**33**	**870**	25000	94	4400	270	< 1.5	**930**	**4**	48	44	81
		17465	19000	0.9	**32**	140	< 0.5	1	13000	59	**39**	**1100**	29000	120	5500	290	< 1.5	**1100**	**6**	51	47	98
5037837 Power St. (back yard)	0-5 cm	17466	12000	< 0.8	14	78	< 0.5	**1.4**	8600	43	**31**	**1100**	20000	78	3300	230	< 1.5	**870**	**6**	47	33	95
		17467	12000	**1.2**	7	72	< 0.5	**1.1**	8300	37	**26**	**980**	21000	96	3800	220	< 1.5	**740**	**5**	41	31	93
	5-10 cm	17468	11000	< 0.8	11	85	< 0.5	< 0.8	4900	29	15	**370**	18000	36	3000	200	< 1.5	**400**	**2**	39	30	44
		17469	11000	< 0.8	11	70	< 0.5	< 0.8	7000	31	17	**520**	19000	48	3100	210	< 1.5	**480**	**3**	36	30	52
	10-20 cm	17470	16000	**1.2**	**28**	180	< 0.5	0.8	9000	46	**32**	**970**	27000	**130**	5100	300	< 1.5	**860**	**3**	55	40	100
		17471	12000	< 0.8	17	100	< 0.5	< 0.8	5300	33	18	**490**	20000	87	3500	210	< 1.5	**490**	**3**	41	33	63

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037840 Power St. (front yard)	0-5 cm	17304	13000	< 0.8	21	88	< 0.5	2	9700	43	43	2000	23000	110	3300	200	1.6	1500	8	42	33	130
		17305	17000	< 0.8	23	130	< 0.5	2.2	10000	54	50	2200	28000	140	3900	260	< 1.5	1700	10	53	41	160
	5-10 cm	17306	14000	1	37	120	< 0.5	1.3	6800	43	42	1300	24000	140	3500	310	< 1.5	1400	5	49	36	130
		17307	17000	1.1	46	140	< 0.5	1.4	7600	51	43	1400	26000	170	3700	300	< 1.5	1500	4	53	41	180
	10-20 cm	17308	16000	1.2	46	190	< 0.5	1.2	6900	46	32	900	22000	240	3500	360	< 1.5	1200	4	59	40	170
		17309	16000	1.6	49	160	< 0.5	1	7000	46	30	860	24000	170	3700	340	< 1.5	1100	2	59	41	180
5037841 Power St. (back yard)	0-5 cm	17298	11000	< 0.8	11	65	< 0.5	0.8	5400	34	15	600	15000	45	2700	200	1.7	440	3	40	31	70
		17299	12000	< 0.8	11	61	< 0.5	1	6100	34	19	800	17000	51	2900	210	< 1.5	560	4	39	31	70
	5-10 cm	17300	9800	< 0.8	15	72	< 0.5	< 0.8	4700	29	17	730	17000	54	2500	180	< 1.5	490	3	24	28	88
		17301	13000	< 0.8	19	91	< 0.5	1.1	7200	36	24	980	19000	86	2800	210	< 1.5	690	4	42	33	97
	10-20 cm	17302	13000	0.8	27	120	< 0.5	1	7000	37	26	850	19000	86	3100	240	< 1.5	880	3	41	33	140
		17303	14000	1.4	36	150	< 0.5	1	6700	38	31	930	22000	190	3000	260	< 1.5	1000	4	52	37	140
5037827 Serpentine St. (front yard)	0-5 cm	17400	7400	< 0.8	8	51	< 0.5	2.5	16000	29	38	2000	15000	60	8000	170	1.6	1300	12	27	21	160
		17401	8500	< 0.8	10	56	< 0.5	2	17000	34	44	2000	19000	64	8000	200	1.9	1400	11	37	27	95
	5-10 cm	17402	11000	< 0.8	< 5	40	< 0.5	< 0.8	4300	29	9	170	16000	12	2900	170	< 1.5	170	2	29	30	28
		17403	11000	< 0.8	7	43	< 0.5	< 0.8	6800	30	14	440	16000	22	3600	180	< 1.5	380	3	32	31	35
	10-20 cm	17404	12000	< 0.8	7	55	< 0.5	< 0.8	3900	33	12	310	18000	25	3200	190	< 1.5	220	2	31	33	33
		17405	16000	< 0.8	6	82	< 0.5	< 0.8	6400	40	13	360	20000	25	3600	240	< 1.5	260	2	46	39	36
5037828 Serpentine St. (back yard)	0-5 cm	17406	13000	< 0.8	10	76	< 0.5	2.5	19000	42	38	2200	20000	64	8500	240	1.8	1300	13	49	33	150
		17407	12000	< 0.8	11	69	< 0.5	2.6	25000	41	45	2400	19000	73	12000	220	2.1	1600	16	47	31	160
	5-10 cm	17408	14000	< 0.8	< 5	51	< 0.5	< 0.8	4800	34	7	100	18000	8	3100	190	< 1.5	100	2	42	37	26
		17409	15000	< 0.8	< 5	69	< 0.5	< 0.8	5600	38	8	130	18000	11	3300	210	< 1.5	140	2	47	41	29
	10-20 cm	17410	13000	< 0.8	7	65	< 0.5	< 0.8	4200	34	13	370	17000	57	3100	210	< 1.5	260	2	36	35	49
		17411	11000	< 0.8	< 5	52	< 0.5	< 0.8	3800	32	10	190	15000	30	3000	180	< 1.5	170	2	31	33	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037872 Succo St. (front yard)	0-5 cm	17190	15000	< 0.8	6	68	< 0.5	< 0.8	8600	41	10	**340**	20000	24	3900	250	< 1.5	**230**	**3**	51	35	42
		17191	14000	< 0.8	< 5	59	< 0.5	< 0.8	8600	40	8	**170**	18000	13	4300	260	< 1.5	**120**	**2**	53	36	32
	5-10 cm	17192	15000	< 0.8	< 5	62	< 0.5	< 0.8	8400	42	8	**120**	18000	11	4500	260	< 1.5	**95**	**2**	55	39	32
		17193	15000	< 0.8	7	77	< 0.5	**1.2**	9000	44	19	**1100**	19000	40	4400	260	< 1.5	**490**	**6**	53	37	55
	10-20 cm	17194	10000	< 0.8	10	56	< 0.5	**1.1**	7700	36	19	**1000**	22000	44	4400	200	< 1.5	**500**	**11**	32	28	54
		17195	11000	< 0.8	8	48	< 0.5	< 0.8	4300	31	8	**220**	16000	25	3400	210	< 1.5	**160**	< 1	25	27	31
5037873 Succo St. (back yard)	0-5 cm	17184	11000	< 0.8	< 5	46	< 0.5	< 0.8	5000	35	6	65	14000	11	3500	210	< 1.5	**71**	1	29	30	28
		17185	10000	< 0.8	< 5	45	< 0.5	< 0.8	5300	34	6	**94**	15000	10	3800	210	< 1.5	**74**	1	23	28	29
	5-10 cm	17186	9100	< 0.8	7	70	< 0.5	1	6500	34	19	**1300**	16000	50	4500	200	< 1.5	**540**	**7**	20	25	51
		17187	11000	< 0.8	5	64	< 0.5	0.9	7100	38	14	**780**	17000	34	4300	230	< 1.5	**370**	**4**	32	31	50
	10-20 cm	17188	14000	< 0.8	7	89	< 0.5	< 0.8	6000	36	13	**590**	17000	68	3800	200	< 1.5	**360**	**3**	43	32	52
		17189	15000	< 0.8	7	94	< 0.5	< 0.8	5500	39	12	**440**	18000	43	3900	240	< 1.5	**280**	**5**	42	35	47
5037874 Succo St. (back yard)	0-5 cm	17196	6200	< 0.8	10	43	< 0.5	< 0.8	3000	22	15	**660**	12000	46	2000	120	< 1.5	**470**	**3**	18	17	56
		17197	6900	< 0.8	12	48	< 0.5	< 0.8	4200	24	16	**720**	13000	43	2500	130	< 1.5	**510**	**3**	20	19	47
	5-10 cm	17198	10000	< 0.8	14	81	< 0.5	< 0.8	5100	33	16	**690**	16000	70	3600	180	< 1.5	**440**	**2**	22	24	70
		17199	16000	< 0.8	14	100	< 0.5	0.8	6600	42	**20**	**860**	21000	53	4500	220	< 1.5	**570**	**2**	42	33	71
	10-20 cm	17200	19000	< 0.8	**30**	150	< 0.5	**1.1**	8100	52	**33**	**1200**	28000	**140**	6100	310	< 1.5	**1000**	**4**	50	40	110
		17201	21000	< 0.8	**23**	160	< 0.5	**1.1**	7000	54	**29**	**1100**	27000	120	5500	290	2.5	**930**	**4**	48	40	130

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037817 Union St. (front yard)	0-5 cm	17358	9000	**2.2**	**19**	57	< 0.5	**1.3**	4100	30	**33**	**1500**	20000	**210**	3200	170	< 1.5	**1000**	**6**	20	31	77
		17359	8900	< 0.8	**20**	53	< 0.5	**1.2**	3500	30	**31**	**1500**	19000	**150**	3000	160	< 1.5	**1000**	**6**	22	32	64
	5-10 cm	17360	9100	**3.7**	15	52	< 0.5	< 0.8	3000	26	15	**500**	19000	**180**	2800	160	< 1.5	**340**	**3**	18	31	44
		17361	9200	< 0.8	14	59	< 0.5	< 0.8	2200	27	15	**550**	18000	120	2800	170	< 1.5	**360**	**3**	18	32	43
	10-20 cm	17362	9700	< 0.8	11	56	< 0.5	< 0.8	2200	27	13	**380**	18000	120	3000	170	< 1.5	**230**	**2**	18	32	40
		17363	8200	< 0.8	11	60	< 0.5	< 0.8	1700	24	11	**380**	16000	67	2600	170	< 1.5	**190**	**2**	16	29	36
5037818 Union St. (back yard)	0-5 cm	17364	7500	< 0.8	12	55	< 0.5	**1.1**	2600	30	**26**	**1200**	18000	**130**	3400	170	< 1.5	**740**	**4**	21	30	75
		17365	7500	< 0.8	12	46	< 0.5	0.9	2800	29	**23**	**1100**	18000	**130**	3400	170	< 1.5	**740**	**6**	22	29	84
	5-10 cm	17366	13000	< 0.8	11	90	< 0.5	< 0.8	5400	38	17	**520**	21000	110	4300	250	< 1.5	**350**	**3**	46	40	66
		17367	10000	< 0.8	11	65	< 0.5	< 0.8	4300	33	18	**530**	20000	**130**	4000	220	< 1.5	**410**	**2**	36	35	73
	10-20 cm	17368	12000	< 0.8	12	89	< 0.5	< 0.8	4100	37	14	**450**	20000	120	4300	230	< 1.5	**260**	**2**	41	38	58
		17369	10000	< 0.8	9	64	< 0.5	< 0.8	4400	31	12	**300**	18000	99	3800	220	< 1.5	**220**	1	42	38	54
5037844 Union St. (front yard)	0-5 cm	17022	8700	< 0.8	**18**	50	< 0.5	0.9	5600	30	**22**	**1000**	15000	64	3400	170	< 1.5	**670**	**6**	33	29	55
		17023	9200	< 0.8	15	53	< 0.5	< 0.8	5000	31	**22**	**860**	15000	55	3900	160	< 1.5	**670**	**5**	22	28	59
	5-10 cm	17024	9800	< 0.8	14	56	< 0.5	< 0.8	3400	30	18	**670**	15000	55	3000	180	< 1.5	**460**	**4**	22	29	56
		17025	9000	< 0.8	17	51	< 0.5	< 0.8	3300	29	13	**550**	15000	49	2500	160	< 1.5	**330**	**3**	30	29	51
	10-20 cm	17026	8900	< 0.8	**23**	55	< 0.5	< 0.8	3500	30	14	**430**	16000	63	2600	170	< 1.5	**380**	**3**	29	29	43
		17027	9800	< 0.8	16	67	< 0.5	< 0.8	3400	31	14	**410**	18000	80	2700	190	< 1.5	**370**	**3**	30	31	58
5037845 Union St. (back yard)	0-5 cm	17016	11000	< 0.8	14	56	< 0.5	**1.3**	7800	31	**23**	**1300**	16000	46	3800	210	< 1.5	**600**	**8**	45	31	65
		17017	12000	< 0.8	16	61	< 0.5	**1.1**	7800	40	**23**	**1400**	17000	55	4000	210	< 1.5	**690**	**11**	47	34	50
	5-10 cm	17018	11000	< 0.8	11	51	< 0.5	< 0.8	3700	32	12	**530**	16000	31	2400	190	< 1.5	**280**	**2**	34	30	39
		17019	11000	< 0.8	9	56	< 0.5	< 0.8	4000	27	14	**570**	16000	37	2500	200	< 1.5	**300**	**3**	36	32	45
	10-20 cm	17020	10000	0.9	**21**	140	< 0.5	< 0.8	3000	28	17	**510**	16000	110	2200	220	< 1.5	**480**	**3**	44	30	110
		17021	9200	< 0.8	11	68	< 0.5	< 0.8	2400	24	11	**260**	13000	77	2100	170	< 1.5	**250**	1	28	26	53

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037804 Venice St. (back yard)	0-5 cm	16942	13000	< 0.8	**<u>38</u>**	78	< 0.5	**2**	5700	55	**<u>61</u>**	**<u>3800</u>**	29000	120	5400	220	**3.5**	**<u>1800</u>**	**<u>36</u>**	41	38	70
		16943	14000	0.8	**<u>44</u>**	82	< 0.5	**2.4**	6500	62	**<u>75</u>**	**<u>4700</u>**	33000	**150**	5700	230	**3.8**	**<u>2200</u>**	**<u>49</u>**	42	38	82
	5-10 cm	16944	19000	< 0.8	5	110	< 0.5	< 0.8	6800	45	13	**<u>410</u>**	22000	13	6100	280	< 1.5	**<u>250</u>**	**3**	58	44	36
		16945	15000	< 0.8	< 5	79	< 0.5	< 0.8	6900	38	12	**<u>470</u>**	20000	16	6200	260	< 1.5	**<u>260</u>**	**3**	51	40	35
	10-20 cm	16946	13000	< 0.8	< 5	69	< 0.5	< 0.8	5600	34	8	**110**	19000	7	4800	240	< 1.5	**97**	< 1	51	39	27
		16947	16000	< 0.8	< 5	87	< 0.5	< 0.8	6100	39	8	**100**	21000	8	5300	260	< 1.5	**96**	< 1	57	42	28

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037524 Bennett St. (front yard)	0-5 cm	15742	8900	< 0.8	**31**	42	< 0.5	**2.1**	7600	49	**32**	**390**	16000	49	3100	170	3	**510**	**2**	35	28	50
		15743	7900	< 0.8	**25**	36	< 0.5	**2.1**	7000	45	**29**	**320**	14000	42	2300	140	2.4	**500**	**7**	27	24	41
	5-10 cm	15744	11000	< 0.8	**94**	48	< 0.5	**1.2**	6700	39	**41**	**680**	23000	61	2600	180	< 1.5	**650**	**3**	31	33	56
		15745	12000	< 0.8	**77**	51	< 0.5	1	6500	39	**33**	**540**	21000	49	2500	180	< 1.5	**560**	**3**	34	32	50
	10-20 cm	15746	12000	< 0.8	**63**	55	< 0.5	0.9	5300	35	**31**	**440**	20000	38	2600	190	< 1.5	**550**	**3**	34	32	45
		15747	11000	< 0.8	**43**	53	< 0.5	< 0.8	4000	30	**22**	**290**	18000	53	2500	170	< 1.5	**390**	1	31	30	35
5037525 Bennett St. (back yard)	0-5 cm	15736	10000	< 0.8	**50**	50	< 0.5	**1.7**	8900	40	**35**	**560**	18000	50	2800	190	< 1.5	**630**	1	37	33	58
		15737	12000	< 0.8	**52**	60	< 0.5	**2.4**	9500	49	**39**	**620**	19000	59	3000	200	1.9	**680**	1	41	34	69
	5-10 cm	15738	13000	< 0.8	**71**	58	< 0.5	**1.1**	7700	39	**32**	**600**	20000	51	2700	230	< 1.5	**610**	< 1	41	39	54
		15739	12000	1	**80**	59	< 0.5	**1.5**	9100	43	**38**	**810**	21000	63	2700	230	< 1.5	**740**	1	39	40	66
	10-20 cm	15740	10000	< 0.8	**32**	48	< 0.5	< 0.8	4000	29	12	**200**	16000	22	2400	160	< 1.5	**210**	< 1	33	30	28
		15741	11000	< 0.8	**43**	55	< 0.5	< 0.8	4600	30	17	**260**	17000	28	2500	170	< 1.5	**300**	1	34	32	34
5037576 Bennett St. (front yard)	0-5 cm	18480	10000	< 0.8	**22**	31	< 0.5	**1.1**	7400	28	**22**	**210**	14000	26	2700	160	< 1.5	**320**	1	32	26	36
		18481	11000	< 0.8	**20**	32	< 0.5	**1.1**	7600	29	20	**180**	14000	23	2700	170	1.6	**290**	< 1	35	28	37
	5-10 cm	18482	11000	< 0.8	**33**	27	< 0.5	< 0.8	5600	30	**26**	**310**	16000	27	2200	160	< 1.5	**430**	1	31	28	34
		18483	12000	< 0.8	**41**	32	< 0.5	< 0.8	6100	32	21	**290**	17000	23	2400	190	< 1.5	**400**	< 1	38	31	37
	10-20 cm	18484	12000	< 0.8	**28**	35	< 0.5	< 0.8	6100	28	15	**180**	15000	18	2300	180	< 1.5	**310**	< 1	42	31	32
		18485	13000	< 0.8	**28**	35	< 0.5	< 0.8	6000	30	16	**190**	16000	17	2400	200	< 1.5	**300**	< 1	44	32	33
5037577 Bennett St. (back yard)	0-5 cm	18486	11000	< 0.8	**22**	57	< 0.5	**2**	15000	39	**25**	**270**	15000	34	3500	210	2.5	**400**	1	46	37	79
		18487	12000	< 0.8	**34**	54	< 0.5	**2**	16000	38	**27**	**330**	17000	37	3500	210	2.2	**440**	1	48	37	66
	5-10 cm	18488	12000	< 0.8	**38**	56	< 0.5	**1.4**	15000	36	**26**	**390**	17000	35	2900	210	1.9	**470**	**2**	45	41	84
		18489	12000	**1.1**	**59**	51	< 0.5	**1.1**	16000	35	**27**	**470**	18000	57	3000	220	< 1.5	**530**	**2**	49	40	66
	10-20 cm	18490	10000	< 0.8	**38**	43	< 0.5	< 0.8	9700	32	21	**290**	14000	27	2400	180	1.6	**360**	1	31	33	55
		18491	14000	< 0.8	**29**	55	< 0.5	< 0.8	11000	40	16	**230**	16000	25	3000	230	< 1.5	**300**	1	51	41	51

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037542 Chesser St. (front yard)	0-5 cm	15844	7200	< 0.8	29	48	< 0.5	2.9	9800	56	67	1000	20000	64	3900	190	2.3	1100	1	29	28	74
		15845	8800	< 0.8	26	52	< 0.5	2.9	10000	57	54	880	19000	55	3700	220	2.3	950	1	39	30	72
	5-10 cm	15846	11000	< 0.8	21	32	< 0.5	< 0.8	6900	31	18	280	16000	15	2700	250	< 1.5	450	2	39	32	41
		15847	11000	< 0.8	21	38	< 0.5	1	8500	36	21	370	16000	21	2700	240	< 1.5	490	< 1	44	33	44
	10-20 cm	15848	9800	< 0.8	12	32	< 0.5	< 0.8	5100	29	8	70	15000	10	2800	210	< 1.5	130	2	30	31	28
		15849	11000	< 0.8	13	40	< 0.5	< 0.8	6900	30	9	120	15000	12	2600	200	< 1.5	150	< 1	40	32	28
5037543 Chesser St. (back yard)	0-5 cm	15838	8300	< 0.8	21	40	< 0.5	1.3	7400	35	29	390	15000	26	2900	160	1.7	490	8	27	28	57
		15839	7800	< 0.8	21	37	< 0.5	1.1	6500	29	23	330	14000	23	2600	140	< 1.5	400	2	25	27	58
	5-10 cm	15840	8000	< 0.8	21	37	< 0.5	< 0.8	7500	26	18	270	13000	18	2600	170	< 1.5	370	2	28	28	52
		15841	9200	1.8	22	41	< 0.5	< 0.8	7700	27	19	250	14000	19	2800	180	< 1.5	330	2	35	30	51
	10-20 cm	15842	9900	< 0.8	15	41	< 0.5	< 0.8	6400	27	11	150	14000	13	2600	170	< 1.5	180	1	36	32	38
		15843	11000	< 0.8	18	41	< 0.5	< 0.8	8900	27	13	160	17000	15	2500	180	< 1.5	200	1	33	29	38
5037544 Cobalt St. (front yard)	0-5 cm	15850	8900	< 0.8	42	60	< 0.5	2.3	8700	54	60	860	23000	67	3300	240	3	780	1	34	34	72
		15851	9700	< 0.8	45	62	< 0.5	2.1	9500	67	70	840	24000	64	3500	250	5	870	1	38	35	73
	5-10 cm	15852	10000	< 0.8	70	64	< 0.5	1.7	9600	38	63	1100	26000	72	3100	310	< 1.5	1100	1	36	36	80
		15853	9700	< 0.8	59	60	< 0.5	1.6	8600	39	61	910	27000	64	3200	300	< 1.5	950	1	34	37	73
	10-20 cm	15854	8700	< 0.8	32	37	< 0.5	< 0.8	6100	26	13	150	15000	23	2600	200	< 1.5	220	1	29	32	31
		15855	11000	< 0.8	39	51	< 0.5	< 0.8	7500	31	19	240	17000	24	2800	270	< 1.5	360	1	35	37	39
5037545 Cobalt St. (back yard)	0-5 cm	15856	9600	< 0.8	32	53	< 0.5	1.6	8800	33	31	510	17000	37	2700	260	< 1.5	490	1	35	35	59
		15857	10000	< 0.8	30	55	< 0.5	0.9	8200	75	29	450	18000	35	2600	270	1.8	430	2	39	37	64
	5-10 cm	15858	11000	< 0.8	44	57	< 0.5	< 0.8	8300	35	37	630	20000	40	2600	340	< 1.5	710	2	39	40	66
		15859	12000	< 0.8	51	65	< 0.5	1.2	7900	38	44	860	23000	51	2600	340	< 1.5	800	2	39	41	83
	10-20 cm	15860	11000	< 0.8	26	56	< 0.5	1	8500	35	15	180	16000	18	2600	340	< 1.5	280	1	39	42	44
		15861	10000	< 0.8	31	53	< 0.5	< 0.8	7700	33	22	310	17000	24	2300	350	< 1.5	400	2	35	42	60

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037546 Cobalt St. (front yard)	0-5 cm	15862	9700	< 0.8	**39**	46	< 0.5	< 0.8	10000	37	**47**	**770**	19000	49	2800	200	< 1.5	**980**	**2**	42	30	40
		15863	9500	< 0.8	**45**	47	< 0.5	< 0.8	9300	36	**46**	**680**	18000	46	3100	200	2.1	**890**	**2**	39	31	61
	5-10 cm	15864	10000	< 0.8	**46**	47	< 0.5	< 0.8	11000	33	**28**	**410**	15000	25	2600	250	< 1.5	**660**	**2**	41	38	31
		15865	10000	< 0.8	**37**	49	< 0.5	0.8	10000	34	**25**	**370**	14000	23	2600	260	< 1.5	**580**	**3**	41	37	30
	10-20 cm	15866	8300	< 0.8	11	37	< 0.5	< 0.8	6500	27	9	58	11000	8	2500	200	< 1.5	**140**	< 1	32	32	17
		15867	9000	< 0.8	14	41	< 0.5	< 0.8	8300	30	11	**100**	12000	9	2500	230	< 1.5	**220**	1	36	35	20
5037547 Cobalt St. (back yard)	0-5 cm	15868	10000	< 0.8	**27**	48	< 0.5	< 0.8	9200	36	**32**	**420**	16000	34	2900	220	< 1.5	**600**	**2**	41	32	47
		15869	11000	< 0.8	**32**	51	< 0.5	< 0.8	10000	39	**38**	**570**	18000	37	3100	230	< 1.5	**660**	**6**	44	32	56
	5-10 cm	15870	11000	< 0.8	**37**	46	< 0.5	< 0.8	9000	34	**21**	**270**	15000	22	2500	250	< 1.5	**410**	**2**	42	36	37
		15871	10000	< 0.8	**44**	43	< 0.5	0.9	8900	33	**25**	**300**	15000	24	2500	260	< 1.5	**470**	**2**	42	36	42
	10-20 cm	15872	8900	< 0.8	**17**	39	< 0.5	< 0.8	5400	28	9	69	13000	9	2500	190	< 1.5	**140**	< 1	33	32	24
		15873	9100	< 0.8	**18**	40	< 0.5	< 0.8	5900	30	11	**90**	13000	10	2600	200	< 1.5	**190**	< 1	34	30	26
5037556 Copper St. (front yard)	0-5 cm	15928	6700	< 0.8	**44**	45	< 0.5	**2.5**	7000	32	**77**	**1100**	21000	69	2400	150	**2.5**	**1400**	**2**	23	28	84
		15929	9000	< 0.8	**36**	49	< 0.5	**2.5**	9100	35	**59**	**720**	19000	63	2300	210	**2.5**	**1100**	**3**	31	32	69
	5-10 cm	15930	9800	< 0.8	**42**	48	< 0.5	**1.3**	10000	28	**39**	**510**	15000	33	1900	280	< 1.5	**850**	**2**	31	39	49
		15931	8600	< 0.8	**35**	46	< 0.5	< 0.8	9600	28	**33**	**610**	16000	34	2200	250	< 1.5	**770**	**2**	28	38	51
	10-20 cm	15932	7600	< 0.8	**28**	35	< 0.5	**1.5**	6400	25	12	**130**	12000	15	2100	200	< 1.5	**190**	1	23	36	27
		15933	9500	< 0.8	**23**	45	< 0.5	0.8	9300	30	12	**140**	13000	13	2300	260	< 1.5	**250**	**2**	33	42	31
5037557 Copper St. (back yard)	0-5 cm	15922	8600	< 0.8	**56**	58	< 0.5	**3.6**	7100	40	**81**	**1300**	23000	88	2500	160	2.4	**1500**	**3**	31	28	100
		15923	8600	< 0.8	**66**	56	< 0.5	**3.9**	7900	42	**88**	**1400**	25000	93	2400	170	2.3	**1700**	**4**	31	29	130
	5-10 cm	15924	8400	< 0.8	**47**	47	< 0.5	**1.8**	12000	52	**44**	**530**	14000	35	2200	150	< 1.5	**1100**	**4**	35	36	74
		15925	7800	< 0.8	**35**	41	< 0.5	**1**	11000	46	**25**	**270**	11000	20	2200	130	< 1.5	**620**	**3**	32	36	52
	10-20 cm	15926	7800	< 0.8	**29**	44	< 0.5	< 0.8	6100	42	16	**180**	13000	21	3000	170	< 1.5	**250**	**2**	22	34	35
		15927	9800	< 0.8	**20**	61	< 0.5	< 0.8	4300	39	13	**100**	16000	17	4000	240	< 1.5	**140**	1	24	37	38

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037598 Copper St. (front yard)	0-5 cm	18613	8200	< 0.8	**49**	56	< 0.5	**2.9**	10000	36	**74**	**1200**	23000	76	2700	210	**3.8**	**1300**	**3**	32	32	78
		18614	10000	0.9	**52**	58	< 0.5	**2.9**	10000	39	**74**	**1100**	26000	81	2900	230	**2.8**	**1300**	**3**	38	34	87
	5-10 cm	18615	10000	< 0.8	**43**	49	< 0.5	**1.7**	13000	30	**38**	**550**	17000	35	2400	290	< 1.5	**860**	**3**	36	38	53
		18616	12000	< 0.8	**41**	53	< 0.5	**1.6**	13000	37	**38**	**550**	18000	37	2700	300	< 1.5	**860**	**3**	39	40	58
	10-20 cm	18617	11000	0.8	**24**	48	< 0.5	**1.1**	13000	28	14	**170**	13000	13	2400	290	1.9	**270**	**2**	36	43	35
		18618	9400	< 0.8	**25**	41	< 0.5	0.8	9600	27	13	**150**	13000	14	2300	270	< 1.5	**230**	**2**	30	38	33
5037599 Copper St. (back yard)	0-5 cm	18619	8500	< 0.8	10	28	< 0.5	< 0.8	2700	21	8	82	11000	12	1500	150	< 1.5	**120**	< 1	17	25	25
		18620	8400	< 0.8	8	27	< 0.5	< 0.8	2500	19	7	72	11000	12	1500	150	< 1.5	**100**	1	16	24	24
	5-10 cm	18621	9600	< 0.8	**21**	42	< 0.5	< 0.8	5600	25	17	**190**	14000	17	1900	250	< 1.5	**340**	1	27	34	35
		18622	9200	< 0.8	**24**	42	< 0.5	0.9	6300	25	19	**270**	14000	21	1900	240	< 1.5	**410**	1	26	33	43
	10-20 cm	18623	10000	< 0.8	**21**	54	< 0.5	0.8	9100	28	12	**120**	15000	14	2300	330	< 1.5	**210**	1	35	41	33
		18624	9600	< 0.8	**21**	47	< 0.5	0.8	7600	27	14	**150**	14000	15	2100	270	< 1.5	**270**	1	32	37	34
5037538 Edison Rd. (front yard)	0-5 cm	15814	9300	1	**40**	74	< 0.5	**3.8**	11000	52	**57**	**1100**	19000	110	2400	150	2.5	**1300**	**4**	33	23	84
		15815	7800	< 0.8	**46**	63	< 0.5	**3.2**	9600	63	**61**	**1100**	19000	95	2400	130	2	**1300**	**4**	31	22	84
	5-10 cm	15816	9000	< 0.8	**93**	66	< 0.5	**3.5**	9400	**120**	**54**	**1000**	22000	120	2400	130	< 1.5	**1300**	**4**	35	24	91
		15817	10000	< 0.8	**69**	63	< 0.5	**2.5**	10000	**87**	**33**	**610**	16000	67	2500	130	< 1.5	**820**	**3**	35	24	66
	10-20 cm	15818	14000	< 0.8	**48**	75	< 0.5	< 0.8	6500	49	16	**150**	15000	17	2600	140	< 1.5	**340**	**2**	37	31	45
		15819	11000	< 0.8	**60**	68	< 0.5	< 0.8	6900	41	15	**180**	11000	18	2400	120	< 1.5	**340**	**2**	35	27	32
5037539 Edison Rd. (back yard)	0-5 cm	15820	10000	< 0.8	**53**	57	< 0.5	< 0.8	6600	35	**28**	**460**	15000	43	2200	170	< 1.5	**510**	**2**	35	28	47
		15821	10000	< 0.8	**40**	56	< 0.5	< 0.8	7200	34	**27**	**410**	15000	40	2400	180	< 1.5	**500**	**2**	36	29	50
	5-10 cm	15822	11000	< 0.8	**84**	61	< 0.5	< 0.8	7200	37	**24**	**440**	15000	48	2200	170	< 1.5	**510**	**2**	35	29	47
		15823	10000	< 0.8	**63**	58	< 0.5	< 0.8	7100	39	**23**	**380**	14000	38	2000	170	< 1.5	**490**	**2**	34	27	49
	10-20 cm	15824	10000	< 0.8	**56**	59	< 0.5	< 0.8	6500	33	19	**300**	12000	32	2000	150	< 1.5	**420**	**2**	31	26	43
		15825	10000	< 0.8	**54**	59	< 0.5	< 0.8	7700	32	**24**	**340**	13000	35	1900	180	< 1.5	**510**	**2**	34	27	50

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037540 Edison Rd. (front yard)	0-5 cm	15832	9200	< 0.8	48	44	< 0.5	1.5	6600	31	34	530	17000	61	2400	180	< 1.5	660	2	32	28	43
		15833	9400	< 0.8	45	49	< 0.5	1.5	7300	31	36	540	17000	46	2600	210	< 1.5	720	2	31	30	45
	5-10 cm	15834	11000	< 0.8	82	53	< 0.5	1.3	6800	37	44	620	21000	55	2300	250	< 1.5	950	3	31	36	57
		15835	11000	< 0.8	76	57	< 0.5	1.1	7200	34	42	570	21000	55	2200	250	< 1.5	910	2	35	36	53
	10-20 cm	15836	13000	< 0.8	47	52	< 0.5	< 0.8	5300	31	13	190	17000	22	2200	220	< 1.5	280	2	34	35	35
		15837	12000	< 0.8	53	52	< 0.5	< 0.8	5900	31	21	290	18000	27	2200	240	< 1.5	470	2	35	36	41
5037541 Edison Rd. (back yard)	0-5 cm	15826	9000	< 0.8	73	44	< 0.5	1.9	6300	33	43	800	20000	67	2500	190	< 1.5	860	3	32	30	56
		15827	9700	< 0.8	65	49	< 0.5	1.9	6800	36	36	550	19000	54	2600	240	< 1.5	670	3	34	34	54
	5-10 cm	15828	9300	< 0.8	77	46	< 0.5	1.7	7200	36	44	600	17000	64	2200	180	< 1.5	1100	3	34	32	62
		15829	8200	< 0.8	78	45	< 0.5	1.8	5800	37	38	590	18000	58	2300	170	< 1.5	870	3	20	31	61
	10-20 cm	15830	11000	< 0.8	79	55	< 0.5	2	9100	41	38	520	15000	44	2200	170	< 1.5	980	3	33	31	80
		15831	9900	< 0.8	57	49	< 0.5	1.4	6600	36	29	370	13000	33	2300	170	< 1.5	650	3	29	30	56
5037586 Edison Rd. (front yard)	0-5 cm	18541	8900	< 0.8	48	44	< 0.5	1.9	6300	33	34	650	19000	87	2700	190	1.8	550	2	26	26	57
		18542	8200	< 0.8	58	45	< 0.5	1.7	6200	35	37	720	19000	82	2800	180	< 1.5	730	2	27	27	61
	5-10 cm	18543	11000	3.3	120	53	< 0.5	1.6	7400	34	47	980	27000	260	2700	240	< 1.5	1100	3	28	36	88
		18544	12000	0.9	110	56	< 0.5	1.5	7300	38	42	790	26000	110	2800	270	< 1.5	980	4	28	39	89
	10-20 cm	18545	11000	< 0.8	120	67	< 0.5	0.8	4400	34	24	410	21000	100	2700	340	< 1.5	450	3	23	34	82
		18546	11000	< 0.8	140	81	< 0.5	0.9	4500	35	26	440	22000	150	2600	300	< 1.5	500	< 1	25	33	96
5037587 Edison Rd. (back yard)	0-5 cm	18547	6200	< 0.8	130	58	< 0.5	3.6	11000	44	100	1900	32000	120	2700	190	2.3	2100	4	26	25	100
		18548	6600	< 0.8	170	58	< 0.5	3.1	10000	39	85	1700	32000	120	2600	180	2.5	1900	4	25	26	92
	5-10 cm	18549	9000	< 0.8	280	64	< 0.5	1	6500	29	40	680	27000	110	2700	230	< 1.5	1100	4	24	34	63
		18550	8900	< 0.8	270	71	< 0.5	1.2	11000	29	44	860	27000	120	2500	230	< 1.5	1200	5	32	34	79
	10-20 cm	18551	12000	< 0.8	230	83	< 0.5	< 0.8	4600	36	21	410	28000	100	2900	250	< 1.5	320	3	37	38	51
		18552	9200	< 0.8	130	64	< 0.5	0.9	5100	33	30	530	22000	68	2500	210	< 1.5	620	3	29	30	57

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037548 Franklin St. (front yard)	0-5 cm	15892	7200	< 0.8	**35**	39	< 0.5	**2.6**	7700	47	**63**	**770**	18000	58	2500	180	**5.8**	**990**	**2**	29	24	75
		15893	6500	< 0.8	**42**	37	< 0.5	**2.2**	6900	36	**54**	**750**	18000	57	2500	160	**2.9**	**960**	**2**	24	24	66
	5-10 cm	15894	7000	< 0.8	**39**	31	< 0.5	< 0.8	5800	28	**33**	**440**	16000	27	2200	160	< 1.5	**560**	< 1	26	27	34
		15895	6600	< 0.8	**30**	28	< 0.5	< 0.8	5500	26	**28**	**400**	14000	26	2200	150	< 1.5	**550**	1	25	25	31
	10-20 cm	15896	7200	< 0.8	**24**	32	< 0.5	< 0.8	4700	23	14	**140**	12000	13	2100	150	< 1.5	**240**	1	21	30	24
		15897	6900	< 0.8	**29**	29	< 0.5	< 0.8	4600	25	14	**160**	12000	14	2200	160	< 1.5	**240**	< 1	24	28	22
5037549 Franklin St. (back yard)	0-5 cm	15886	4900	< 0.8	**39**	28	< 0.5	**1.5**	4200	30	**46**	**780**	16000	43	1900	130	2.1	**810**	< 1	19	21	58
		15887	5200	< 0.8	**40**	33	< 0.5	**1.7**	4300	34	**48**	**810**	17000	42	1900	130	**3.2**	**830**	**2**	20	23	64
	5-10 cm	15888	4700	< 0.8	**29**	22	< 0.5	< 0.8	3100	21	18	**300**	11000	14	1700	120	< 1.5	**330**	**3**	17	21	22
		15889	5000	< 0.8	**26**	27	< 0.5	< 0.8	3200	20	17	**290**	10000	17	1600	140	< 1.5	**340**	**3**	18	24	28
	10-20 cm	15890	5200	< 0.8	**25**	24	< 0.5	< 0.8	2900	20	13	**120**	11000	12	1900	140	< 1.5	**180**	**2**	17	21	19
		15891	8400	< 0.8	**80**	33	< 0.5	< 0.8	3300	24	11	**140**	15000	20	2100	140	< 1.5	**170**	1	25	29	29
5037550 Franklin St. (front yard)	0-5 cm	15874	12000	< 0.8	**25**	69	< 0.5	1	13000	47	**37**	**460**	21000	41	3100	290	1.9	**590**	**2**	45	39	63
		15875	10000	< 0.8	**39**	57	< 0.5	**2.1**	13000	41	**47**	**880**	22000	55	3600	250	< 1.5	**830**	**3**	38	35	62
	5-10 cm	15876	8800	< 0.8	**66**	45	< 0.5	**1.4**	11000	38	**64**	**1000**	23000	68	2700	190	< 1.5	**1200**	**3**	31	33	59
		15877	8900	< 0.8	**57**	43	< 0.5	**1.4**	9700	33	**50**	**980**	20000	57	2800	210	< 1.5	**990**	**3**	31	35	54
	10-20 cm	15878	8700	< 0.8	**31**	35	< 0.5	< 0.8	7500	28	15	**140**	13000	12	2900	220	< 1.5	**290**	1	26	37	30
		15879	8500	< 0.8	**25**	33	< 0.5	< 0.8	6200	27	12	**120**	12000	11	2900	210	< 1.5	**240**	1	26	36	27
5037551 Franklin St. (back yard)	0-5 cm	15880	7200	< 0.8	**24**	51	< 0.5	**1.6**	5900	36	**22**	**460**	12000	30	1800	200	1.8	**350**	**3**	27	34	53
		15881	8600	< 0.8	**27**	52	< 0.5	**1.8**	7000	36	**27**	**530**	14000	33	2000	190	2.4	**450**	**2**	28	34	64
	5-10 cm	15882	7200	< 0.8	**53**	33	< 0.5	**1.1**	5500	29	**29**	**670**	15000	87	1900	150	< 1.5	**570**	**3**	21	28	36
		15883	6400	< 0.8	**45**	36	< 0.5	1	4400	28	**26**	**540**	14000	33	1700	170	1.5	**480**	**2**	15	28	41
	10-20 cm	15884	7300	< 0.8	**36**	44	< 0.5	**1.1**	5400	33	19	**290**	12000	24	1800	260	< 1.5	**420**	1	27	39	39
		15885	6700	< 0.8	**29**	41	< 0.5	0.9	4500	31	15	**160**	10000	12	1700	240	< 1.5	**310**	1	23	38	35

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037513 Hardy St. (front yard)	0-5 cm	15570	11000	< 0.8	**260**	61	< 0.5	**2.7**	11000	68	**87**	**1700**	31000	120	2700	130	< 1.5	**1900**	**4**	31	30	110
		15571	12000	0.9	**150**	68	< 0.5	**2.3**	13000	46	**63**	**1200**	28000	**160**	3900	210	**2.8**	**1300**	**4**	51	37	130
	5-10 cm	15572	12000	0.8	**330**	75	< 0.5	**3.8**	12000	**84**	**120**	**2300**	39000	**240**	2800	150	< 1.5	**2800**	**7**	40	35	140
		15573	13000	0.9	**160**	74	< 0.5	**1.8**	13000	46	**56**	**1200**	28000	**160**	3800	210	1.6	**1100**	**4**	50	39	120
	10-20 cm	15574	12000	< 0.8	**150**	61	< 0.5	0.9	7900	36	**30**	**610**	22000	100	3000	180	< 1.5	**630**	**3**	41	34	69
		15575	13000	< 0.8	**240**	68	< 0.5	**2.2**	8700	66	**72**	**1200**	27000	120	2500	140	< 1.5	**1600**	**5**	36	31	79
5037514 Hardy St. (back yard)	0-5 cm	15565	10000	< 0.8	**130**	53	< 0.5	**3**	12000	69	**94**	**1300**	32000	120	3800	170	**5.2**	**1600**	**4**	35	34	100
	5-10 cm	15568	9500	< 0.8	**310**	59	< 0.5	**3.8**	12000	**79**	**140**	**2400**	39000	**170**	2700	130	< 1.5	**3100**	**6**	27	29	140
	10-20 cm	15569	10000	< 0.8	**160**	55	< 0.5	**3.4**	11000	**79**	**93**	**1500**	33000	**150**	4200	180	**6**	**1600**	**4**	33	35	110
5037534 Hardy St. (north front/side yard)	0-5 cm	15790	8300	1.2	**290**	82	< 0.5	**6.7**	11000	**90**	**160**	**3000**	45000	**340**	3200	210	**10**	**2900**	**10**	35	40	**220**
		15791	10000	1.2	**250**	86	< 0.5	**5.6**	11000	**85**	**140**	**2800**	47000	**330**	3300	200	**8.2**	**2600**	**10**	40	42	**230**
	5-10 cm	15792	11000	1.4	**570**	79	< 0.5	**4.7**	9100	**91**	**120**	**2500**	47000	**290**	2800	200	1.8	**2800**	**11**	39	41	**180**
		15793	12000	1.2	**540**	76	< 0.5	**3.4**	8300	**88**	**110**	**2200**	47000	**250**	2800	210	2	**2200**	< 1	40	42	**170**
	10-20 cm	15794	10000	0.8	**360**	84	< 0.5	0.8	4600	37	**35**	**580**	21000	120	2000	150	< 1.5	**750**	**7**	33	33	61
		15795	10000	1.1	**410**	86	< 0.5	**1.3**	5500	40	**45**	**1000**	24000	**170**	2200	170	< 1.5	**970**	**8**	35	33	86
5037533 Hardy St. (south front/side yard)	0-5 cm	15796	11000	0.8	**100**	61	< 0.5	**3.1**	8200	**78**	**100**	**1400**	32000	110	3300	200	**7.3**	**1700**	**7**	41	39	90
		15797	9100	< 0.8	**190**	53	< 0.5	**2.7**	8000	**72**	**130**	**2100**	39000	**150**	3100	170	**6.8**	**2300**	**12**	34	37	100
	5-10 cm	15798	9500	0.9	**480**	57	< 0.5	**3.7**	9100	**91**	**130**	**2900**	49000	**260**	2900	190	1.9	**3000**	**9**	32	41	140
		15799	8300	< 0.8	**460**	56	< 0.5	**3.1**	6100	**73**	**96**	**2000**	37000	**200**	2500	140	1.7	**2100**	**8**	26	34	110
	10-20 cm	15800	7600	< 0.8	**370**	56	< 0.5	**1.2**	4800	40	**39**	**630**	20000	90	2300	110	< 1.5	**860**	**6**	24	29	55
		15801	8700	< 0.8	**620**	93	< 0.5	**1.4**	4700	42	**47**	**770**	25000	**130**	2300	130	< 1.5	**1100**	**8**	31	29	75

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037606 Hardy St. (front yard)	0-5 cm	18661	7800	< 0.8	**180**	52	< 0.5	**5.1**	8800	**75**	**140**	**2100**	39000	**170**	3200	160	**9.9**	**2400**	**7**	26	35	110
		18662	6900	< 0.8	**180**	56	< 0.5	**5.1**	8600	**72**	**120**	**2100**	38000	**170**	3400	140	**9.8**	**2000**	**5**	24	32	110
	5-10 cm	18663	11000	< 0.8	**340**	58	< 0.5	**2.8**	9100	50	**120**	**2800**	49000	**170**	2500	220	2.4	**2500**	**7**	29	47	100
		18664	10000	< 0.8	**370**	55	< 0.5	**3**	9000	51	**120**	**3000**	48000	**220**	2500	210	2.3	**2500**	**8**	27	45	110
	10-20 cm	18665	8800	< 0.8	**390**	63	< 0.5	**2.9**	8600	50	**110**	**1700**	32000	**160**	2000	130	< 1.5	**2400**	**7**	23	32	87
		18666	7900	1	**470**	61	< 0.5	**3**	7300	49	**110**	**2000**	36000	**230**	2100	150	< 1.5	**2500**	**8**	20	32	96
5037607 Hardy St. (back yard)	0-5 cm	18667	6600	< 0.8	**22**	22	< 0.5	0.9	1600	25	19	**150**	11000	20	2000	96	2.4	**180**	< 1	11	21	28
		18668	8700	< 0.8	**23**	33	< 0.5	**1.2**	3000	33	**25**	**160**	13000	24	2400	140	**2.9**	**230**	1	28	26	35
	5-10 cm	18669	11000	< 0.8	**64**	44	< 0.5	1	3900	36	**28**	**420**	17000	59	2500	180	1.8	**400**	**3**	35	31	40
		18670	10000	< 0.8	**70**	46	< 0.5	**1.2**	4100	37	**32**	**520**	16000	64	2500	170	1.9	**460**	**2**	35	29	47
	10-20 cm	18671	10000	< 0.8	**150**	43	< 0.5	0.8	3200	29	**34**	**750**	21000	94	2100	160	< 1.5	**600**	**3**	34	30	44
		18672	11000	< 0.8	**160**	48	< 0.5	**1.1**	3800	35	**37**	**860**	22000	83	2300	150	< 1.5	**700**	**4**	38	30	57
5037594 Hillcrest Ave. (front yard)	0-5 cm	18589	5900	< 0.8	15	33	< 0.5	**1.7**	5800	22	**22**	**250**	12000	31	2600	140	1.7	**350**	1	19	21	48
		18590	7900	< 0.8	**23**	45	< 0.5	**2**	9500	26	**38**	**560**	16000	53	3400	200	< 1.5	**610**	**2**	33	25	67
	5-10 cm	18591	8600	< 0.8	**31**	36	< 0.5	1	6500	19	**30**	**360**	15000	36	2200	180	< 1.5	**540**	1	28	26	50
		18592	10000	< 0.8	**32**	57	< 0.5	0.9	6200	22	**27**	**310**	16000	31	2400	200	< 1.5	**470**	1	31	29	47
	10-20 cm	18593	9800	< 0.8	**29**	32	< 0.5	< 0.8	3400	20	8	55	12000	9	2000	140	< 1.5	**130**	< 1	27	27	20
		18594	9000	< 0.8	**24**	25	< 0.5	< 0.8	2900	18	8	53	11000	9	1800	130	< 1.5	**130**	< 1	23	25	20
5037595 Hillcrest Ave. (back yard)	0-5 cm	18595	8000	< 0.8	**59**	53	< 0.5	**2.1**	7800	31	**54**	**900**	20000	89	2800	220	< 1.5	**880**	**2**	33	26	80
		18596	5300	< 0.8	**56**	35	< 0.5	**1.6**	5000	17	**52**	**850**	17000	70	2100	130	1.6	**930**	**3**	14	19	60
	5-10 cm	18597	8000	< 0.8	**69**	34	< 0.5	< 0.8	3200	17	**23**	**360**	15000	35	1900	130	< 1.5	**430**	**2**	14	25	44
		18598	7700	< 0.8	**72**	32	< 0.5	< 0.8	2500	18	18	**310**	14000	33	1700	140	< 1.5	**340**	**2**	13	23	34
	10-20 cm	18599	8200	< 0.8	**45**	35	< 0.5	< 0.8	2000	17	11	**190**	12000	25	1600	170	< 1.5	**210**	**2**	13	24	31
		18600	9200	< 0.8	**64**	40	< 0.5	< 0.8	2500	18	14	**330**	14000	31	1600	150	< 1.5	**260**	1	15	24	35

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037526 Hodge St. (front yard)	0-5 cm	15754	12000	< 0.8	11	38	< 0.5	0.9	5400	35	13	**99**	15000	21	2400	170	1.6	**160**	1	42	31	38
		15755	12000	< 0.8	9	37	< 0.5	< 0.8	5200	31	10	78	14000	17	2200	160	< 1.5	**110**	< 1	43	30	33
	5-10 cm	15756	13000	< 0.8	15	45	< 0.5	< 0.8	4700	32	7	**100**	15000	15	2100	180	< 1.5	**110**	< 1	43	34	29
		15757	11000	< 0.8	17	39	< 0.5	< 0.8	4100	27	8	**98**	14000	12	1800	170	< 1.5	**120**	1	39	30	29
	10-20 cm	15758	11000	**1.4**	17	32	< 0.5	< 0.8	3700	26	11	**95**	13000	13	1800	150	< 1.5	**210**	< 1	33	26	25
		15759	11000	< 0.8	8	32	< 0.5	< 0.8	4000	26	7	48	13000	8	1900	150	< 1.5	**150**	< 1	36	27	20
5037527 Hodge St. (back yard)	0-5 cm	15748	8500	< 0.8	11	36	< 0.5	0.8	4500	25	10	**88**	11000	14	2000	170	1.7	**130**	**2**	37	26	42
		15749	9200	< 0.8	12	38	< 0.5	0.9	4500	26	12	**120**	13000	15	2100	180	1.5	**160**	**2**	28	26	46
	5-10 cm	15750	9900	< 0.8	16	38	< 0.5	< 0.8	5600	27	12	**140**	14000	16	2300	190	< 1.5	**160**	< 1	37	29	44
		15751	9800	< 0.8	13	38	0.5	< 0.8	5800	26	10	**110**	14000	13	2400	180	< 1.5	**130**	1	35	28	41
	10-20 cm	15752	13000	< 0.8	**57**	67	< 0.5	0.8	8700	34	20	**350**	19000	31	2600	270	< 1.5	**360**	**3**	44	41	62
		15753	12000	< 0.8	**36**	60	< 0.5	< 0.8	8600	34	19	**310**	17000	28	2500	240	< 1.5	**340**	1	42	37	51
5037574 Hodge St. (front yard)	0-5 cm	18468	7500	< 0.8	**46**	45	< 0.5	**2.9**	8400	40	**70**	**940**	23000	71	3000	190	**4.2**	**1100**	**4**	38	28	64
		18469	6500	< 0.8	**50**	42	< 0.5	**2.7**	6000	41	**73**	**1100**	23000	74	2500	150	**4.8**	**1200**	**4**	18	25	66
	5-10 cm	18470	9600	< 0.8	**89**	50	< 0.5	**1.9**	8500	46	**82**	**1200**	28000	74	2700	310	2.5	**1700**	**4**	25	35	75
		18471	8400	< 0.8	**110**	45	< 0.5	**1.9**	6700	36	**78**	**1200**	26000	81	2200	250	2.2	**1600**	**4**	18	30	75
	10-20 cm	18472	12000	< 0.8	**54**	44	< 0.5	< 0.8	6700	34	**23**	**340**	18000	29	2300	250	< 1.5	**490**	**2**	42	36	41
		18473	12000	< 0.8	**36**	40	< 0.5	< 0.8	6200	32	19	**230**	17000	22	2300	210	< 1.5	**430**	1	45	34	36
5037575 Hodge St. (back yard)	0-5 cm	18474	11000	< 0.8	**38**	53	< 0.5	**1.8**	8600	39	**42**	**640**	19000	45	3100	230	**2.8**	**770**	**2**	42	34	55
		18475	11000	< 0.8	**35**	56	< 0.5	**2**	8800	40	**45**	**720**	20000	46	3200	220	**3.1**	**830**	**3**	42	34	50
	5-10 cm	18476	13000	< 0.8	**55**	56	< 0.5	0.9	9500	39	**31**	**460**	22000	35	3200	260	1.8	**620**	**2**	45	43	47
		18477	13000	< 0.8	**72**	58	< 0.5	**1.2**	9600	40	**40**	**590**	21000	45	3100	290	< 1.5	**830**	**3**	45	41	55
	10-20 cm	18478	12000	< 0.8	**50**	50	< 0.5	0.8	8500	32	**26**	**400**	20000	35	2400	250	< 1.5	**510**	**2**	33	42	45
		18479	14000	< 0.8	**53**	61	< 0.5	**1.3**	10000	39	**31**	**490**	22000	38	2700	290	1.6	**670**	**2**	42	48	48

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037519 Lakeshore Rd. (front yard)	0-5 cm	15619	8200	< 0.8	**100**	53	< 0.5	**4.3**	8500	66	**100**	**1400**	31000	110	2600	190	**7.5**	**1500**	< 1	31	35	130
		15620	8000	< 0.8	**99**	45	< 0.5	**2.7**	6200	51	**76**	**1400**	28000	89	2400	170	**6.1**	**1200**	1	32	32	99
	5-10 cm	15621	8100	< 0.8	**97**	33	< 0.5	1	7300	30	**42**	**770**	19000	57	2000	140	< 1.5	**810**	< 1	31	26	60
		15622	9000	< 0.8	**100**	34	< 0.5	**1.2**	6000	32	**42**	**730**	18000	64	1800	150	< 1.5	**880**	< 1	33	26	65
	10-20 cm	15623	9500	< 0.8	**120**	40	< 0.5	< 0.8	5400	32	**28**	**450**	18000	52	1800	140	< 1.5	**550**	1	34	28	56
		15624	9600	< 0.8	**95**	45	< 0.5	< 0.8	4400	30	**24**	**340**	14000	36	1900	170	< 1.5	**480**	1	31	28	52
5037520 Lakeshore Rd. (back yard)	0-5 cm	15613	10000	< 0.8	**60**	49	< 0.5	**1.9**	7300	52	**44**	**560**	21000	53	2600	220	**4.8**	**590**	**2**	39	33	73
		15614	11000	< 0.8	**67**	54	< 0.5	**1.6**	9500	51	**48**	**550**	21000	62	3700	210	**4.3**	**680**	**2**	43	33	68
	5-10 cm	15615	12000	< 0.8	**120**	66	< 0.5	< 0.8	7800	41	**49**	**1100**	27000	81	2300	290	< 1.5	**1000**	**3**	40	36	70
		15616	11000	< 0.8	**100**	53	< 0.5	< 0.8	6100	35	**42**	**940**	24000	65	2100	230	< 1.5	**900**	**3**	37	33	63
	10-20 cm	15617	12000	< 0.8	**110**	78	< 0.5	< 0.8	7100	43	**36**	**640**	24000	67	2300	360	< 1.5	**780**	**3**	42	39	66
		15618	12000	< 0.8	**100**	64	< 0.5	< 0.8	6200	40	**35**	**660**	23000	61	2200	270	< 1.5	**790**	**2**	40	34	56
5037528 Lakeshore Rd. (front yard)	0-5 cm	15760	8500	0.9	**65**	63	< 0.5	**3.8**	13000	47	**94**	**1500**	27000	86	3200	200	**3.2**	**1800**	**3**	39	30	93
		15761	7800	< 0.8	**62**	59	< 0.5	**4.7**	13000	48	**110**	**1500**	27000	94	3400	200	**4**	**1900**	**3**	35	29	100
	5-10 cm	15762	11000	< 0.8	**94**	49	< 0.5	**1.5**	12000	41	**46**	**570**	21000	46	2000	350	< 1.5	**900**	**3**	45	47	55
		15763	11000	< 0.8	**73**	53	< 0.5	0.8	13000	43	**58**	**790**	22000	57	2600	300	< 1.5	**1200**	**3**	44	42	64
	10-20 cm	15764	10000	1.4	**41**	35	< 0.5	< 0.8	6300	47	16	**220**	14000	23	2000	180	< 1.5	**300**	1	36	31	38
		15765	10000	< 0.8	**54**	40	< 0.5	< 0.8	8400	40	**23**	**300**	16000	29	2200	230	< 1.5	**480**	1	40	37	46
5037529 Lakeshore Rd. (back yard)	0-5 cm	15766	9300	< 0.8	**35**	55	< 0.5	**2**	9900	35	**35**	**460**	15000	44	2400	240	2.4	**570**	**2**	36	34	97
		15767	10000	< 0.8	**35**	55	< 0.5	**1.4**	10000	35	**33**	**460**	16000	37	2500	250	1.5	**570**	**2**	40	35	60
	5-10 cm	15768	9700	< 0.8	**43**	48	< 0.5	1	10000	32	**33**	**500**	16000	41	2400	240	< 1.5	**640**	**2**	35	35	57
		15769	8100	< 0.8	**44**	46	< 0.5	1	10000	29	**31**	**470**	14000	33	2200	220	< 1.5	**580**	**2**	23	30	52
	10-20 cm	15770	9900	< 0.8	**47**	43	< 0.5	< 0.8	8600	30	21	**340**	15000	30	2200	210	< 1.5	**420**	**2**	35	36	44
		15771	9700	< 0.8	**47**	40	< 0.5	< 0.8	7900	28	21	**320**	15000	27	2100	200	< 1.5	**400**	1	33	33	38

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037530 Lakeshore Rd. (front yard)	0-5 cm	15772	7600	< 0.8	**37**	44	< 0.5	**2.2**	12000	52	**56**	**670**	18000	55	3800	160	**3.1**	**930**	**2**	35	25	53
		15773	7800	< 0.8	**47**	49	< 0.5	**3.2**	14000	64	**74**	**940**	22000	76	4400	170	**3.9**	**1200**	**3**	36	26	72
	5-10 cm	15774	9100	< 0.8	**100**	39	< 0.5	**1.4**	10000	33	**73**	**1000**	25000	71	2500	160	< 1.5	**1500**	**3**	37	28	67
		15775	8800	< 0.8	**99**	42	< 0.5	**1.7**	10000	38	**86**	**1200**	25000	77	2500	170	< 1.5	**1700**	**3**	35	27	77
	10-20 cm	15776	9900	< 0.8	**50**	34	< 0.5	< 0.8	4000	29	15	**180**	14000	22	2000	140	< 1.5	**270**	1	26	26	27
		15777	11000	< 0.8	**34**	35	< 0.5	< 0.8	5900	30	17	**220**	14000	21	2200	170	< 1.5	**350**	1	36	29	29
5037531 Lakeshore Rd. (back yard)	0-5 cm	15778	8000	1	7	25	< 0.5	< 0.8	5700	26	7	52	11000	8	3300	150	< 1.5	**66**	< 1	28	24	27
		15779	8600	< 0.8	6	24	< 0.5	< 0.8	4700	26	5	41	11000	8	2800	150	< 1.5	**55**	**2**	34	26	21
	5-10 cm	15780	9700	< 0.8	**27**	38	< 0.5	< 0.8	5700	39	19	**240**	14000	24	2500	200	< 1.5	**320**	**4**	40	31	150
		15781	9700	< 0.8	**18**	31	< 0.5	< 0.8	4500	46	11	**140**	13000	19	2400	180	2.5	**200**	**2**	38	29	96
	10-20 cm	15782	9300	**1.2**	< 5	32	< 0.5	0.8	4100	32	**27**	**370**	15000	36	2200	150	< 1.5	**490**	**3**	22	30	87
		15783	12000	< 0.8	**32**	37	< 0.5	< 0.8	5700	33	16	**260**	15000	28	2400	180	< 1.5	**310**	**3**	42	32	110
5037532 Lakeshore Rd. (front yard)	0-5 cm	15784	9600	< 0.8	**110**	65	< 0.5	**4.5**	11000	**75**	**81**	**790**	25000	**150**	4100	230	**8.1**	**970**	**5**	42	34	110
		15785	9800	< 0.8	**110**	62	< 0.5	**3.9**	10000	71	**84**	**850**	27000	**130**	4100	210	**6.5**	**980**	**5**	41	37	97
	5-10 cm	15786	11000	**1.3**	**200**	62	< 0.5	**1.5**	10000	44	**64**	**1200**	32000	**140**	3800	230	1.5	**1100**	**6**	42	38	77
		15787	11000	< 0.8	**200**	61	< 0.5	**1.6**	7900	49	**80**	**1400**	37000	**150**	3300	220	1.8	**1200**	**6**	39	39	76
	10-20 cm	15788	10000	0.9	**220**	57	< 0.5	**1.1**	6500	41	**72**	**1100**	30000	**140**	2600	240	< 1.5	**1300**	**6**	34	38	69
		15789	11000	1	**210**	61	< 0.5	**1.3**	6800	41	**64**	**1000**	30000	**130**	2700	240	< 1.5	**1200**	**6**	38	39	68

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037572 Lakeshore Rd. (front yard)	0-5 cm	18456	9600	< 0.8	**36**	52	< 0.5	**4.5**	8800	68	**69**	**730**	21000	73	3200	170	**9.4**	**820**	**3**	38	31	69
		18457	8400	< 0.8	**38**	53	< 0.5	**4.3**	9200	71	**81**	**860**	21000	76	3200	160	**8.5**	**930**	**3**	37	30	74
	5-10 cm	18458	9400	< 0.8	**110**	66	< 0.5	**2.7**	11000	47	**130**	**1900**	39000	120	3000	180	1.8	**2100**	**4**	40	30	95
		18459	9800	< 0.8	**120**	61	< 0.5	**2.7**	15000	47	**150**	**2300**	43000	120	3400	170	1.6	**2500**	**5**	43	31	110
	10-15 cm	18460	8800	< 0.8	**160**	51	< 0.5	**1.9**	9400	**110**	**89**	**1200**	37000	96	2800	150	**5.5**	**1600**	**5**	32	31	82
		18461	8600	0.8	**170**	52	< 0.5	**2.5**	12000	62	**110**	**1300**	38000	120	3000	150	1.6	**2100**	**5**	30	30	95
5037573 Lakeshore Rd. (back yard)	0-5 cm	18462	6700	< 0.8	**30**	40	< 0.5	**2.2**	7700	33	**39**	**470**	14000	42	2900	140	**4**	**610**	**3**	21	21	87
		18463	7000	< 0.8	**28**	41	< 0.5	**2.2**	7400	32	**33**	**470**	13000	39	2500	150	**3.4**	**550**	**3**	21	21	83
	5-10 cm	18464	7600	< 0.8	**31**	39	< 0.5	< 0.8	6300	25	20	**350**	13000	27	2100	130	< 1.5	**400**	**2**	20	21	47
		18465	7800	< 0.8	**28**	41	< 0.5	< 0.8	5800	25	17	**310**	12000	24	2100	130	< 1.5	**350**	**2**	21	22	45
	10-20 cm	18466	7900	< 0.8	**27**	40	< 0.5	< 0.8	5600	25	20	**310**	13000	25	2200	150	< 1.5	**370**	**2**	22	23	44
		18467	7700	< 0.8	**23**	37	< 0.5	< 0.8	5500	24	15	**250**	12000	21	2300	150	< 1.5	**300**	**2**	23	24	42
5037578 Lakeshore Rd. (front yard)	0-5 cm	18492	10000	< 0.8	**80**	53	< 0.5	**3.1**	9600	68	**62**	**700**	23000	76	4300	230	**5.2**	**830**	**2**	44	35	83
		18493	10000	< 0.8	**109**	61	< 0.5	**3**	9100	67	**60**	**790**	25000	87	4000	210	**6.1**	**840**	**3**	42	35	92
	5-10 cm	18494	12000	< 0.8	**320**	89	< 0.5	**4.4**	8900	**88**	**120**	**2400**	45000	**200**	3300	200	1.7	**2500**	**7**	44	39	**180**
		18495	12000	< 0.8	**290**	77	< 0.5	**3.5**	7200	67	**89**	**1800**	39000	**170**	2900	190	2	**1800**	**6**	39	38	150
	10-20 cm	18496	9600	< 0.8	**160**	53	< 0.5	1	4500	33	**34**	**530**	18000	50	2100	150	< 1.5	**730**	**2**	31	30	56
		18497	11000	< 0.8	**130**	64	< 0.5	< 0.8	4600	31	**25**	**440**	17000	41	2400	160	< 1.5	**540**	< 1	37	32	47
5037579 Lakeshore Rd. (back yard)	0-5 cm	18498	11000	< 0.8	**36**	59	< 0.5	**1.9**	9100	45	**29**	**320**	17000	42	3900	220	**3.1**	**380**	< 1	45	34	55
		18499	10000	< 0.8	**45**	56	< 0.5	**1.6**	8300	61	**32**	**420**	18000	49	3600	200	**5.8**	**460**	**2**	39	31	63
	5-10 cm	18500	11000	< 0.8	**63**	53	< 0.5	0.9	9500	34	**27**	**500**	20000	49	3500	220	< 1.5	**480**	**2**	38	34	50
		18501	9600	< 0.8	**75**	50	< 0.5	0.9	8300	34	**27**	**540**	19000	71	3400	190	< 1.5	**460**	**2**	34	31	53
	10-20 cm	18502	7800	< 0.8	**73**	47	< 0.5	< 0.8	5400	27	**23**	**360**	15000	44	2500	160	< 1.5	**460**	**2**	25	25	55
		18503	8100	< 0.8	**71**	47	< 0.5	< 0.8	5700	28	**23**	**370**	15000	47	2500	180	< 1.5	**440**	**2**	29	26	62

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037608 Lakeshore Rd. (front yard)	0-5 cm	18673	12000	< 0.8	**120**	63	< 0.5	**2.8**	6300	67	**60**	**930**	29000	120	2900	230	**3.9**	**800**	**4**	45	36	89
		18674	9200	< 0.8	**91**	46	< 0.5	**2.6**	4800	56	**49**	**700**	23000	95	2300	190	**4.6**	**670**	**3**	35	32	81
	5-10 cm	18675	9200	< 0.8	**300**	55	< 0.5	**1.9**	4200	66	**71**	**1600**	36000	**160**	2200	190	< 1.5	**1100**	**7**	31	33	87
		18676	8600	< 0.8	**270**	48	< 0.5	**1.8**	4200	55	**67**	**1500**	35000	**140**	2100	160	< 1.5	**1100**	**5**	28	32	87
	10-20 cm	18677	8100	< 0.8	**83**	34	< 0.5	< 0.8	2100	27	17	**390**	16000	30	1400	140	< 1.5	**290**	**2**	21	27	35
		18678	9600	< 0.8	**130**	43	< 0.5	0.9	3000	35	**26**	**580**	19000	55	1600	150	< 1.5	**520**	**3**	28	29	51
5037609 Lakeshore Rd. (back yard)	0-5 cm	18679	7900	< 0.8	**110**	39	< 0.5	**2.2**	4100	43	**46**	**750**	21000	88	2000	140	**3.5**	**740**	**3**	20	26	56
		18680	7300	< 0.8	**120**	43	< 0.5	**3**	3300	46	**50**	**870**	21000	**140**	1900	130	**4.4**	**750**	**4**	14	24	70
	5-10 cm	18681	8200	< 0.8	**190**	43	< 0.5	**1.9**	3900	40	**51**	**1300**	25000	120	1700	140	< 1.5	**1000**	**5**	22	26	56
		18682	8800	0.9	**210**	46	< 0.5	**3.2**	3400	46	**47**	**1400**	25000	**160**	1700	130	< 1.5	**940**	**5**	18	26	71
	10-20 cm	18683	7800	< 0.8	**110**	38	< 0.5	**1.5**	2500	22	**24**	**500**	14000	44	1400	110	< 1.5	**510**	**2**	17	24	40
		18684	7900	< 0.8	**100**	40	< 0.5	**1.1**	2700	22	18	**390**	13000	47	1500	110	< 1.5	**400**	< 1	17	25	38
5037610 Lakeshore Rd. (front yard)	0-5 cm	18685	7400	< 0.8	**96**	42	< 0.5	**3.1**	4900	55	**63**	**750**	23000	**180**	3000	140	**8.6**	**760**	**4**	18	27	73
		18686	8300	< 0.8	**87**	45	< 0.5	**3.6**	6200	59	**68**	**680**	23000	**130**	3400	170	**8.3**	**740**	**4**	27	31	94
	5-10 cm	18687	8600	< 0.8	**140**	43	< 0.5	**1.7**	4500	37	**66**	**1400**	29000	**150**	2400	150	1.6	**1200**	**4**	24	30	69
		18688	8700	< 0.8	**130**	46	< 0.5	**1.7**	4400	39	**61**	**1300**	29000	**160**	2500	150	2.2	**1000**	**4**	26	29	67
	10-20 cm	18689	8300	< 0.8	**190**	52	< 0.5	**1.2**	3400	42	**40**	**800**	22000	120	2200	130	< 1.5	**780**	**4**	21	28	57
		18690	11000	< 0.8	**180**	61	< 0.5	**1.1**	5600	44	**46**	**900**	24000	**140**	2400	180	< 1.5	**890**	**4**	36	34	61
5037611 Lakeshore Rd. (back yard)	0-5 cm	18691	11000	< 0.8	**120**	71	< 0.5	**2.9**	6600	54	**63**	**1400**	28000	**130**	2900	220	**4.6**	**1000**	**4**	40	35	110
		18692	11000	< 0.8	**99**	56	< 0.5	**2.2**	6000	50	**58**	**1200**	26000	110	2700	180	**4.1**	**850**	1	39	33	88
	5-10 cm	18693	11000	< 0.8	**110**	70	< 0.5	**1.3**	6100	38	**41**	**670**	18000	83	2300	230	1.5	**940**	**3**	42	33	89
		18694	11000	< 0.8	**96**	53	< 0.5	**1.5**	5700	38	**41**	**630**	19000	73	2200	210	1.9	**780**	**3**	39	33	69
	10-20 cm	18695	11000	1	**200**	110	< 0.5	**1.4**	5900	37	**44**	**720**	21000	**170**	2300	320	< 1.5	**850**	**4**	39	31	140
		18696	10000	< 0.8	**130**	65	< 0.5	**1.3**	5000	37	**38**	**560**	19000	**160**	2200	210	1.7	**700**	**3**	31	31	89

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037566 Lindsley St. (front yard)	0-5 cm	15982	9300	< 0.8	**45**	60	< 0.5	**2.7**	9000	35	**62**	**950**	23000	81	3500	180	< 1.5	**1100**	**2**	33	29	100
		15983	9100	< 0.8	**64**	59	< 0.5	**2.6**	9200	49	**91**	**1200**	30000	96	3800	190	**3.2**	**1400**	**3**	36	34	80
	5-10 cm	15984	11000	< 0.8	**76**	52	< 0.5	**1.1**	6300	31	**47**	**720**	24000	56	2200	180	< 1.5	**820**	**2**	32	36	51
		15985	11000	< 0.8	**68**	49	< 0.5	**1.2**	6600	30	**54**	**630**	24000	70	2400	190	< 1.5	**870**	**2**	31	35	49
	10-20 cm	15986	11000	< 0.8	**50**	39	< 0.5	< 0.8	3400	23	13	**170**	16000	19	1500	130	< 1.5	**260**	< 1	25	35	24
		15987	10000	< 0.8	**46**	41	< 0.5	< 0.8	3200	24	14	**170**	14000	20	1700	130	< 1.5	**270**	< 1	27	35	26
5037567 Lindsley St. (back yard)	0-5 cm	15988	8500	< 0.8	**84**	44	< 0.5	**1.9**	5900	31	**65**	**1100**	24000	75	1900	210	< 1.5	**1200**	**3**	29	27	59
		15989	7900	< 0.8	**97**	38	< 0.5	**1.9**	6000	28	**75**	**1400**	26000	82	2300	190	< 1.5	**1400**	1	28	27	72
	5-10 cm	15990	10000	< 0.8	**38**	32	< 0.5	< 0.8	3100	22	14	**170**	13000	13	1600	180	< 1.5	**310**	< 1	25	29	25
		15991	9800	< 0.8	**42**	29	< 0.5	< 0.8	3100	23	19	**240**	14000	18	1500	180	< 1.5	**390**	< 1	27	29	26
	10-20 cm	15992	9800	< 0.8	17	33	< 0.5	< 0.8	2700	21	7	76	13000	9	1600	160	< 1.5	**120**	< 1	25	30	18
		15993	11000	< 0.8	**20**	39	< 0.5	< 0.8	2800	22	8	**100**	14000	11	1600	160	< 1.5	**150**	< 1	28	31	18
5037562 Lindsley St. (front yard)	0-5 cm	15958	8900	< 0.8	**130**	56	< 0.5	**3**	7500	48	**96**	**1700**	31000	120	2700	180	**3.3**	**1700**	**3**	35	31	100
		15959	8600	< 0.8	**97**	63	< 0.5	**3.8**	9800	49	**99**	**1700**	28000	110	2700	200	**3.9**	**2000**	**3**	37	28	100
	5-10 cm	15960	11000	1	**310**	54	< 0.5	**1.4**	7100	58	**60**	**1100**	31000	**130**	2500	190	< 1.5	**1100**	**5**	34	33	84
		15961	12000	< 0.8	**320**	71	< 0.5	**1.5**	7700	**72**	**63**	**1300**	34000	**140**	2800	230	1.6	**970**	**6**	37	35	87
	10-20 cm	15962	13000	< 0.8	**270**	72	< 0.5	**1.4**	5900	53	**48**	**1000**	29000	100	2500	230	< 1.5	**810**	**5**	35	36	89
		15963	9700	< 0.8	**250**	57	< 0.5	**1.5**	3400	54	**41**	**850**	24000	87	2200	210	< 1.5	**670**	**3**	15	28	79
5037563 Lindsley St. (back yard)	0-5 cm	15964	6400	< 0.8	**130**	47	< 0.5	**2.2**	6500	40	**67**	**1300**	24000	130	2200	140	1.6	**1200**	**2**	17	23	110
		15965	6600	< 0.8	**140**	56	< 0.5	**3**	6600	44	**68**	**1500**	25000	**170**	2400	150	2	**1300**	**3**	24	24	150
	5-10 cm	15966	7300	1	**240**	60	< 0.5	**1.4**	4300	53	**42**	**880**	21000	**150**	2000	160	< 1.5	**850**	**3**	18	26	100
		15967	7400	< 0.8	**260**	44	< 0.5	**1.3**	4400	44	**44**	**900**	23000	**170**	1900	150	< 1.5	**860**	**3**	15	26	100
	10-20 cm	15968	12000	< 0.8	**99**	60	< 0.5	0.9	6100	39	**25**	**460**	18000	72	2200	200	< 1.5	**520**	< 1	37	32	84
		15969	14000	**1.1**	**120**	65	< 0.5	0.9	5600	44	**26**	**550**	20000	88	2300	220	< 1.5	**530**	< 1	41	35	92

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037564 Lindsley St. (front yard)	0-5 cm	15970	11000	< 0.8	43	51	< 0.5	2	12000	42	49	780	21000	51	3500	210	< 1.5	850	< 1	43	31	65
		15971	11000	< 0.8	57	53	< 0.5	2.3	11000	46	63	950	26000	66	3900	230	1.7	1100	3	43	34	62
	5-10 cm	15972	11000	< 0.8	65	51	< 0.5	1.5	7800	42	42	550	21000	51	2900	200	< 1.5	810	2	42	34	50
		15973	13000	< 0.8	65	56	< 0.5	1.2	9500	44	39	500	24000	50	2900	210	< 1.5	700	< 1	44	36	49
	10-20 cm	15974	12000	< 0.8	89	57	< 0.5	1.1	8500	43	33	430	21000	50	2800	170	< 1.5	620	2	39	33	46
		15975	13000	< 0.8	61	60	< 0.5	0.9	8200	42	29	360	19000	40	2800	160	< 1.5	550	< 1	40	33	43
5037565 Lindsley St. (back yard)	0-5 cm	15976	12000	< 0.8	140	60	< 0.5	3	13000	57	100	2000	49000	140	5200	210	3.3	1800	4	35	43	130
		15977	11000	< 0.8	100	71	< 0.5	2.9	12000	51	81	1500	42000	130	3600	230	2.4	1500	4	34	42	130
	5-10 cm	15978	15000	< 0.8	110	75	< 0.5	1.7	8700	53	57	910	32000	85	3200	290	< 1.5	1200	3	37	56	90
		15979	14000	< 0.8	110	75	< 0.5	1.7	8700	52	56	1000	34000	100	3200	280	< 1.5	1100	3	35	54	83
	10-20 cm	15980	15000	< 0.8	66	65	< 0.5	0.8	6500	58	23	390	27000	39	4500	280	< 1.5	440	2	35	56	61
		15981	20000	0.9	81	99	< 0.5	1.3	8600	86	31	480	37000	49	7500	400	< 1.5	600	2	43	73	80
5037569 Lindsley St. (front yard)	0-5 cm	15994	13000	1.8	300	74	< 0.5	2.7	7800	76	86	1600	44000	170	3100	200	< 1.5	1500	6	44	40	110
		15995	8400	< 0.8	110	67	< 0.5	4.1	12000	57	110	1800	33000	160	4100	190	3.3	1900	5	40	30	110
	5-10 cm	15996	8400	< 0.8	70	56	< 0.5	3.4	9700	49	94	1500	30000	110	3900	190	2.9	1500	3	39	31	81
		15997	12000	1	270	67	< 0.5	2	6800	62	64	1200	33000	140	2200	190	< 1.5	1200	5	41	37	97
	10-20 cm	15998	12000	< 0.8	89	52	< 0.5	< 0.8	3700	30	17	240	16000	26	1700	170	< 1.5	340	1	34	33	38
		15999	11000	< 0.8	66	47	< 0.5	< 0.8	3800	29	20	240	17000	25	1500	150	< 1.5	380	< 1	34	33	38

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037588 Lindsley St. (front yard)	0-5 cm	18553	9000	< 0.8	**37**	50	< 0.5	**2.3**	10000	37	**55**	**970**	21000	65	3400	190	1.9	**1300**	**2**	36	26	60
		18554	11000	< 0.8	**38**	57	< 0.5	**2**	10000	39	**50**	**870**	22000	59	3400	200	< 1.5	**1100**	**2**	39	30	71
	5-10 cm	18555	12000	< 0.8	**54**	53	< 0.5	**1**	9800	36	**23**	**360**	17000	34	2800	190	< 1.5	**620**	1	38	29	47
		18556	12000	< 0.8	**51**	46	< 0.5	0.8	8500	33	**21**	**330**	18000	28	2700	190	< 1.5	**370**	1	35	31	60
	10-20 cm	18557	8600	< 0.8	**73**	40	< 0.5	< 0.8	4500	26	12	**190**	14000	25	2400	150	< 1.5	**170**	1	29	29	26
		18558	8000	< 0.8	**47**	30	< 0.5	< 0.8	2700	21	10	**140**	13000	16	2100	110	< 1.5	**140**	< 1	13	23	22
5037589 Lindsley St. (back yard)	0-5 cm	18559	7700	< 0.8	**41**	41	< 0.5	**2.4**	9000	28	**55**	**900**	18000	66	2600	190	< 1.5	**1200**	**2**	26	22	74
		18560	7500	< 0.8	**38**	42	< 0.5	**2.7**	9200	27	**52**	**830**	17000	68	2500	190	< 1.5	**1200**	**2**	23	21	66
	5-10 cm	18561	8700	< 0.8	**27**	33	< 0.5	< 0.8	8000	22	17	**280**	13000	24	2300	210	< 1.5	**410**	1	25	24	39
		18562	8700	< 0.8	**22**	34	< 0.5	< 0.8	7200	22	13	**190**	12000	28	2300	190	< 1.5	**310**	1	26	25	43
	10-20 cm	18563	8600	< 0.8	15	33	< 0.5	< 0.8	5700	22	8	**86**	12000	11	2300	270	< 1.5	**120**	< 1	25	26	24
		18564	8400	< 0.8	14	31	< 0.5	< 0.8	5400	23	9	**90**	13000	12	2500	250	< 1.5	**140**	< 1	26	27	25
5037590 Lindsley St. (front yard)	0-5 cm	18565	7700	< 0.8	**58**	51	< 0.5	**3.3**	11000	40	**95**	**1300**	27000	96	3200	220	**3.1**	**1600**	**3**	30	29	110
		18566	8300	< 0.8	**53**	80	< 0.5	**2.8**	12000	45	**74**	**990**	23000	91	3300	220	**3.6**	**1300**	**3**	32	29	120
	5-10 cm	18567	12000	0.8	**98**	70	< 0.5	**2.7**	17000	48	**70**	**970**	27000	100	3300	380	1.6	**1400**	**4**	43	34	100
		18568	11000	< 0.8	**65**	60	< 0.5	**2.1**	13000	46	**64**	**830**	26000	75	3300	300	< 1.5	**1200**	**3**	37	33	85
	10-20 cm	18569	11000	< 0.8	**46**	66	< 0.5	**1.2**	30000	34	**25**	**310**	18000	34	3300	350	1.5	**480**	**2**	55	30	53
		18570	9900	< 0.8	**41**	61	< 0.5	0.9	13000	34	**26**	**280**	19000	30	3600	300	< 1.5	**410**	**2**	36	31	45
5037591 Lindsley St. (back yard)	0-5 cm	18571	9400	< 0.8	**62**	58	< 0.5	**2.7**	10000	40	**49**	**860**	21000	87	2800	210	2	**980**	**3**	31	29	130
		18572	9800	< 0.8	**61**	56	< 0.5	**2.1**	9400	37	**44**	**710**	21000	82	2900	210	< 1.5	**850**	**3**	33	30	85
	5-10 cm	18573	13000	< 0.8	**85**	68	< 0.5	**1.9**	16000	44	**42**	**680**	20000	69	2700	280	1.6	**980**	**4**	47	33	84
		18574	13000	< 0.8	**80**	75	< 0.5	**2**	17000	44	**38**	**600**	19000	70	2700	290	1.5	**890**	**3**	46	33	90
	10-20 cm	18575	15000	< 0.8	**54**	84	< 0.5	**1.4**	18000	49	**21**	**330**	18000	39	3400	310	< 1.5	**440**	**3**	51	36	63
		18576	14000	< 0.8	**47**	81	< 0.5	**1.3**	19000	41	**21**	**310**	17000	32	3600	330	1.8	**410**	**3**	52	35	57

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037592 Lindsley St. (front yard)	0-5 cm	18577	8800	< 0.8	**24**	50	< 0.5	**2**	11000	31	**46**	**610**	17000	45	3500	190	1.8	**790**	**2**	37	25	49
		18578	6600	< 0.8	**23**	39	< 0.5	**2**	7800	32	**51**	**620**	17000	43	3100	170	2.1	**780**	**2**	28	26	60
	5-10 cm	18579	8900	< 0.8	**22**	40	< 0.5	1	10000	25	**34**	**510**	15000	26	2900	180	< 1.5	**740**	**2**	34	23	35
		18580	6600	**2.8**	**22**	30	< 0.5	0.9	7700	20	**24**	**390**	13000	24	2500	130	< 1.5	**510**	**2**	22	19	26
	10-20 cm	18581	5700	< 0.8	**21**	30	< 0.5	< 0.8	7200	18	13	**120**	10000	11	2800	120	2.5	**190**	1	17	17	19
		18582	5400	< 0.8	8	26	< 0.5	< 0.8	3900	19	8	53	11000	5	2400	120	< 1.5	**90**	< 1	21	22	15
5037593 Lindsley St. (back yard)	0-5 cm	18583	6400	**1.3**	**42**	37	< 0.5	**1.8**	9400	27	**69**	**990**	19000	53	3000	200	1.9	**1000**	**3**	24	24	46
		18584	5800	< 0.8	**45**	38	< 0.5	**2.1**	9200	29	**62**	**960**	18000	56	2900	200	2.1	**1000**	**3**	19	23	50
	5-10 cm	18585	7400	< 0.8	**26**	37	< 0.5	< 0.8	10000	21	**22**	**270**	11000	15	2100	220	< 1.5	**580**	**2**	24	26	24
		18586	6400	< 0.8	**27**	36	< 0.5	0.9	7900	20	**22**	**300**	11000	18	2200	230	< 1.5	**500**	**2**	18	27	29
	10-20 cm	18587	7200	< 0.8	**20**	28	< 0.5	< 0.8	3900	20	14	**99**	14000	12	2500	140	< 1.5	**140**	< 1	19	28	18
		18588	5700	< 0.8	10	24	< 0.5	< 0.8	3900	19	11	**100**	11000	7	2200	150	< 1.5	**160**	< 1	18	25	16
5037596 Lindsley St. (front yard)	0-5 cm	18601	7500	< 0.8	6	30	< 0.5	< 0.8	2800	22	7	54	9200	12	1900	120	1.5	**88**	< 1	18	21	24
		18602	7500	< 0.8	8	31	< 0.5	< 0.8	3700	27	10	79	9700	15	2100	130	< 1.5	**120**	< 1	18	21	28
	5-10 cm	18603	7800	< 0.8	9	31	< 0.5	< 0.8	2700	35	17	**100**	10000	14	2100	120	**2.6**	**180**	< 1	16	23	27
		18604	8400	< 0.8	12	33	< 0.5	< 0.8	3000	**75**	**34**	**160**	12000	20	2300	150	**8.8**	**310**	< 1	20	26	35
	10-20 cm	18605	8400	< 0.8	**25**	39	< 0.5	0.9	4700	38	**24**	**290**	14000	30	2600	170	2.5	**410**	< 1	21	25	40
		18606	8900	< 0.8	**26**	40	< 0.5	1	4300	**260**	**28**	**310**	16000	32	2600	180	2.1	**760**	< 1	19	26	43
5037597 Lindsley St. (back yard)	0-5 cm	18607	8500	< 0.8	**72**	50	< 0.5	**2.3**	6700	35	**45**	**820**	21000	81	2400	190	1.6	**800**	**2**	21	26	73
		18608	8100	< 0.8	**94**	58	< 0.5	**3.6**	8200	44	**63**	**1200**	25000	120	2500	210	1.9	**1200**	**3**	22	27	89
	5-10 cm	18609	9600	< 0.8	**63**	57	< 0.5	**1.7**	11000	38	**35**	**500**	18000	53	2800	240	< 1.5	**710**	**3**	24	28	65
		18610	9300	< 0.8	**80**	61	< 0.5	**2**	13000	39	**40**	**630**	19000	57	3000	270	< 1.5	**780**	**3**	27	28	64
	10-20 cm	18611	8600	< 0.8	**44**	62	< 0.5	**1.5**	12000	40	**25**	**340**	15000	44	3300	250	< 1.5	**500**	**2**	30	29	61
		18612	14000	< 0.8	**74**	80	< 0.5	**1.4**	14000	42	**28**	**530**	21000	59	3400	280	< 1.5	**490**	**3**	47	37	54

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037522 Macdonnell St. (front yard)	0-5 cm	15730	9800	< 0.8	< 5	28	< 0.5	< 0.8	5900	30	9	40	13000	9	3200	170	< 1.5	**77**	< 1	37	28	25
		15731	9200	< 0.8	< 5	27	< 0.5	< 0.8	5400	30	9	40	12000	9	3200	160	< 1.5	**82**	< 1	35	27	61
	5-10 cm	15732	8400	< 0.8	< 5	24	< 0.5	< 0.8	2900	28	5	16	12000	5	2400	120	< 1.5	28	< 1	25	24	14
		15733	9100	< 0.8	5	24	< 0.5	< 0.8	3400	29	6	16	12000	5	2400	130	< 1.5	28	< 1	32	26	14
	10-20 cm	15734	9800	< 0.8	**16**	32	< 0.5	< 0.8	3800	31	10	49	15000	9	2700	170	< 1.5	**51**	< 1	35	29	19
		15735	10000	< 0.8	**20**	34	< 0.5	< 0.8	3900	32	11	62	17000	11	2700	180	< 1.5	**55**	< 1	37	30	21
5037523 Macdonnell St. (back yard)	0-5 cm	15724	8000	< 0.8	**26**	33	< 0.5	< 0.8	5500	26	11	**160**	12000	20	2500	160	< 1.5	**160**	< 1	32	26	31
		15725	6400	**3.5**	**20**	15	< 0.5	< 0.8	4400	11	10	63	10000	17	2200	69	< 1.5	**140**	< 1	11	10	15
	5-10 cm	15726	7600	< 0.8	**34**	30	< 0.5	< 0.8	4400	24	9	**160**	12000	19	2300	140	< 1.5	**130**	< 1	29	25	22
		15727	7800	< 0.8	**25**	33	< 0.5	< 0.8	4300	24	7	**110**	12000	18	2300	140	< 1.5	**99**	< 1	28	24	21
	10-20 cm	15728	8600	< 0.8	**31**	36	< 0.5	< 0.8	3500	25	9	**130**	14000	17	2600	150	< 1.5	**110**	< 1	28	28	24
		15729	8000	< 0.8	**33**	34	< 0.5	< 0.8	3700	24	11	**150**	13000	21	2400	150	< 1.5	**130**	< 1	28	27	24
5037570 Macdonnell St. (front yard)	0-5 cm	18444	9700	< 0.8	11	29	< 0.5	< 0.8	3500	27	8	62	12000	10	2100	130	< 1.5	**85**	< 1	25	26	30
		18445	10000	< 0.8	6	31	< 0.5	< 0.8	3900	26	7	49	12000	9	2000	140	< 1.5	**71**	< 1	32	27	28
	5-10 cm	18446	10000	< 0.8	< 5	27	< 0.5	< 0.8	2900	27	5	30	12000	7	2000	120	< 1.5	**44**	< 1	22	25	17
		18447	10000	< 0.8	7	28	< 0.5	< 0.8	3000	27	5	27	12000	6	1900	120	< 1.5	**52**	< 1	24	25	19
	10-20 cm	18448	9800	< 0.8	**34**	36	< 0.5	< 0.8	3500	30	13	**140**	14000	15	2000	140	< 1.5	**160**	< 1	27	26	24
		18449	9100	< 0.8	**21**	33	< 0.5	< 0.8	2900	27	10	**98**	12000	12	2000	130	< 1.5	**120**	< 1	21	24	20
5037571 Macdonnell St. (back yard)	0-5 cm	18450	7900	< 0.8	**51**	43	< 0.5	**2.4**	4500	40	**42**	**680**	20000	69	2300	150	**2.9**	**660**	**2**	21	29	76
		18451	9100	< 0.8	**73**	47	< 0.5	**2.4**	5900	42	**48**	**850**	22000	91	2300	180	**3.3**	**810**	**3**	32	33	71
	5-10 cm	18452	7500	< 0.8	**81**	37	< 0.5	**1.6**	3400	33	**41**	**840**	21000	62	1800	150	< 1.5	**830**	**3**	14	29	59
		18453	9100	< 0.8	**83**	36	< 0.5	**1.5**	3900	34	**38**	**670**	18000	49	1800	170	< 1.5	**820**	**2**	23	30	57
	10-20 cm	18454	10000	< 0.8	**54**	37	< 0.5	1	4000	36	20	**270**	14000	28	1600	150	< 1.5	**450**	**2**	32	28	37
		18455	11000	< 0.8	**45**	42	< 0.5	1	4600	43	19	**260**	15000	29	1600	160	< 1.5	**430**	**2**	38	30	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037614 Macdonnell St. (front yard)	0-5 cm	18709	11000	< 0.8	**95**	50	< 0.5	**1.8**	6600	38	**37**	**520**	20000	48	3100	160	1.6	**600**	**3**	39	35	57
		18710	11000	< 0.8	**72**	56	< 0.5	**2.1**	7800	39	**36**	**460**	19000	49	3100	160	2.3	**570**	**2**	41	33	66
	5-10 cm	18711	12000	< 0.8	**110**	54	< 0.5	< 0.8	6100	32	**24**	**390**	19000	35	2500	170	< 1.5	**440**	1	38	35	43
		18712	12000	< 0.8	**110**	49	< 0.5	< 0.8	6100	30	**25**	**430**	20000	39	2700	150	< 1.5	**460**	**3**	36	36	39
	10-20 cm	18713	13000	< 0.8	**95**	51	< 0.5	< 0.8	3400	27	12	**270**	18000	18	2100	150	< 1.5	**190**	**2**	32	37	30
		18714	11000	< 0.8	**120**	46	< 0.5	< 0.8	4000	27	18	**340**	20000	28	2300	130	< 1.5	**290**	**3**	28	35	32
5037615 Macdonnell St. (back yard)	0-5 cm	18715	11000	< 0.8	**56**	33	< 0.5	**1.4**	4600	33	**32**	**520**	17000	42	1900	150	< 1.5	**610**	**2**	34	29	55
		18716	10000	< 0.8	**63**	38	< 0.5	**1.9**	5200	39	**38**	**630**	18000	51	2100	170	< 1.5	**700**	**2**	35	30	63
	5-10 cm	18717	10000	< 0.8	**37**	27	< 0.5	< 0.8	3500	25	21	**340**	14000	25	1600	130	< 1.5	**460**	**3**	26	27	36
		18718	10000	< 0.8	**61**	31	< 0.5	**1.2**	4300	32	**34**	**500**	16000	46	1700	150	< 1.5	**740**	**2**	23	27	50
	10-20 cm	18719	10200	**1.2**	**26**	29	< 0.5	< 0.8	3200	22	11	**130**	13000	19	1600	130	< 1.5	**210**	1	25	25	30
		18720	10500	< 0.8	**28**	31	< 0.5	< 0.8	3500	22	15	**200**	13000	21	1600	130	< 1.5	**310**	1	25	26	29
5037600 Macmillian St. (front yard)	0-5 cm	18625	7700	< 0.8	**38**	40	< 0.5	**2.7**	6200	38	**70**	**1000**	22000	65	2500	200	**2.9**	**1000**	**3**	28	27	66
		18626	7400	< 0.8	**43**	43	< 0.5	**3.1**	6700	37	**78**	**1200**	23000	72	2600	190	**4.6**	**1200**	**3**	30	26	71
	5-10 cm	18627	7800	< 0.8	**21**	34	< 0.5	< 0.8	4000	19	**23**	**310**	14000	16	2100	200	< 1.5	**500**	**2**	14	24	39
		18628	10000	< 0.8	**20**	39	< 0.5	< 0.8	4400	23	21	**300**	17000	15	2500	310	< 1.5	**450**	1	28	31	43
	10-20 cm	18629	8500	< 0.8	16	41	< 0.5	< 0.8	3400	21	7	74	12000	9	1900	190	< 1.5	**130**	1	24	28	24
		18630	12000	< 0.8	9	49	< 0.5	< 0.8	4000	26	8	**88**	16000	9	2700	280	< 1.5	**160**	< 1	38	35	33
5037601 Macmillian St. (back yard)	0-5 cm	18631	11000	< 0.8	8	36	< 0.5	< 0.8	5500	31	5	31	13000	6	2700	180	< 1.5	37	< 1	43	30	22
		18632	10000	< 0.8	**18**	36	< 0.5	< 0.8	5700	33	6	62	13000	8	2800	180	< 1.5	**56**	< 1	42	30	26
	5-10 cm	18633	10000	< 0.8	**21**	37	< 0.5	< 0.8	4100	28	7	76	14000	10	2400	180	< 1.5	**75**	< 1	39	31	24
		18634	11000	< 0.8	16	39	< 0.5	< 0.8	5300	33	8	**96**	13000	8	2500	190	< 1.5	**100**	< 1	40	31	31
	10-20 cm	18635	7600	< 0.8	11	25	< 0.5	< 0.8	2000	19	7	60	12000	7	2500	130	< 1.5	**66**	< 1	15	23	26
		18636	7300	< 0.8	13	29	< 0.5	< 0.8	4700	21	9	**120**	11000	9	2200	140	< 1.5	**140**	< 1	21	22	33

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037516 Morlock St. (front yard)	0-5 cm	15581	7500	< 0.8	130	52	< 0.5	3	8400	48	110	1700	32000	150	2900	130	5.1	2000	3	23	28	130
		15582	7100	< 0.8	190	55	< 0.5	3.9	8100	52	190	2900	46000	180	3500	140	4.8	3700	4	22	28	150
	5-10 cm	15583	7100	< 0.8	230	53	< 0.5	1.6	10000	40	85	1200	22000	100	2300	150	< 1.5	2000	4	23	23	81
		15598	7700	< 0.8	210	62	< 0.5	2.4	10000	41	120	1800	28000	120	2500	150	< 1.5	2700	4	23	25	130
	10-20 cm	15599	11000	< 0.8	160	70	< 0.5	1	7400	46	38	660	19000	67	2200	160	< 1.5	890	3	31	29	61
		15600	13000	< 0.8	210	78	< 0.5	0.9	8600	54	46	820	24000	87	2200	210	< 1.5	1100	4	37	36	73
5037517 Morlock St. (back yard)	0-5 cm	15601	11000	< 0.8	95	72	< 0.5	1.5	6500	62	50	750	22000	130	2700	200	4.5	790	2	37	34	99
		15602	9400	< 0.8	51	60	< 0.5	2.2	7200	51	41	450	17000	88	2500	160	4	590	2	36	27	130
	5-10 cm	15603	8400	< 0.8	150	58	< 0.5	1.4	5900	51	41	800	23000	150	1900	160	2	770	4	23	28	100
		15604	9700	< 0.8	88	56	< 0.5	1	6600	43	37	560	19000	91	2300	170	1.8	670	2	34	28	97
	10-20 cm	15605	9300	< 0.8	170	61	< 0.5	1.1	6700	52	41	840	24000	130	2400	160	< 1.5	810	3	32	29	89
		15606	8900	< 0.8	100	57	< 0.5	< 0.8	6100	34	24	600	15000	65	2100	160	< 1.5	480	2	30	25	72
5037582 Morlock St. (front yard)	0-5 cm	18517	11000	0.9	140	65	< 0.5	3.3	9600	100	110	1400	37000	230	5600	210	14	1400	5	41	39	140
		18518	12000	< 0.8	160	82	< 0.5	3.3	9500	75	93	1500	35000	370	4600	210	7.4	1400	6	41	38	160
	5-10 cm	18519	9200	< 0.8	240	79	< 0.5	2.8	5800	54	77	1700	35000	170	2800	170	3.4	1500	6	26	31	110
		18520	9200	< 0.8	340	70	< 0.5	2.5	5700	64	86	2100	41000	260	2700	170	3.2	1700	7	24	31	130
	10-20 cm	18521	8100	< 0.8	360	63	< 0.5	2.1	3600	53	60	1400	26000	130	2200	130	< 1.5	1300	6	20	26	100
		18522	8200	< 0.8	290	59	< 0.5	1.4	3300	40	39	900	21000	120	2100	130	< 1.5	850	5	19	27	76
5037583 Morlock St. (back yard)	0-5 cm	18523	9900	1.8	150	55	< 0.5	2.8	5700	45	50	1000	27000	310	3000	170	3.8	770	3	25	31	110
		18524	11000	1.9	140	62	< 0.5	2.5	6300	46	45	870	26000	280	3000	190	3.7	710	2	34	34	110
	5-10 cm	18525	10000	1.2	190	55	< 0.5	1.5	5200	38	39	1100	29000	210	2700	160	1.7	740	3	29	33	74
		18526	10000	6.7	200	58	< 0.5	1.6	5300	39	42	1100	28000	340	2700	170	1.6	810	2	31	33	78
	10-20 cm	18527	10000	1	220	62	< 0.5	1.4	4700	43	36	880	24000	160	2400	170	< 1.5	760	2	32	34	68
		18528	9800	0.8	200	57	< 0.5	1.5	4200	39	42	880	23000	160	2300	170	< 1.5	790	2	28	31	80

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037602 Morlock St. (front yard)	0-5 cm	18637	8200	< 0.8	**160**	39	< 0.5	**2.7**	3900	54	**68**	**1200**	28000	**140**	2500	130	**6.6**	**980**	**4**	23	25	64
		18638	8200	< 0.8	**190**	45	< 0.5	**2.9**	3400	69	**85**	**1400**	38000	**160**	2900	150	**9.1**	**1100**	**5**	23	30	78
	5-10 cm	18639	8600	< 0.8	**250**	46	< 0.5	**1.7**	2800	42	**52**	**1500**	26000	**170**	1900	130	< 1.5	**840**	**4**	19	23	70
		18640	9800	**8.1**	**220**	45	< 0.5	**1.6**	3100	41	**47**	**1400**	26000	**130**	1900	140	< 1.5	**860**	**4**	29	31	61
	10-20 cm	18641	9400	< 0.8	**210**	44	< 0.5	**1.2**	2600	32	**30**	**730**	18000	87	1700	130	< 1.5	**640**	**3**	29	27	54
		18642	8000	< 0.8	**160**	41	< 0.5	**1.2**	2400	27	**26**	**550**	16000	57	1700	120	< 1.5	**530**	**3**	26	23	43
5037603 Morlock St. (back yard)	0-5 cm	18643	8700	< 0.8	**210**	53	< 0.5	**3.2**	3800	60	**85**	**1800**	36000	**190**	2300	140	**5.1**	**1300**	**5**	27	30	78
		18644	9600	**1.1**	**210**	54	< 0.5	**3.3**	4500	59	**80**	**1800**	34000	**210**	2400	160	**5.1**	**1300**	**5**	31	31	81
	5-10 cm	18645	9600	< 0.8	**200**	65	< 0.5	**2.6**	4800	53	**64**	**1400**	24000	**130**	2000	190	< 1.5	**1400**	**5**	34	27	100
		18646	9800	< 0.8	**190**	65	< 0.5	**2.5**	4700	57	**61**	**1300**	26000	**180**	2100	170	< 1.5	**1300**	**4**	32	28	89
	10-20 cm	18647	13000	< 0.8	**160**	75	< 0.5	**1.7**	8100	52	**55**	**710**	21000	100	2400	200	< 1.5	**1300**	**3**	50	31	95
		18648	9800	< 0.8	**160**	60	< 0.5	**2**	6600	46	**49**	**940**	20000	97	2000	170	< 1.5	**1100**	**3**	35	27	93
5037604 Morlock ST. (front yard)	0-5 cm	18649	10000	< 0.8	**110**	50	< 0.5	**1.5**	5700	49	**46**	**850**	26000	90	2600	170	**4.3**	**620**	**3**	35	36	56
		18650	12000	< 0.8	**100**	54	< 0.5	**1.5**	7100	46	**49**	**820**	28000	94	2900	180	**2.7**	**760**	**3**	43	37	57
	5-10 cm	18651	10000	< 0.8	**180**	51	< 0.5	0.9	3300	41	**28**	**730**	23000	120	2100	150	< 1.5	**530**	**3**	33	34	41
		18652	11000	< 0.8	**210**	55	< 0.5	**2.3**	5600	49	**73**	**1700**	35000	**150**	2500	170	1.7	**1400**	**4**	37	45	70
	10-20 cm	18653	11000	< 0.8	**210**	57	< 0.5	**1.8**	5000	49	**62**	**1400**	33000	**150**	2500	160	**2.7**	**1100**	**3**	36	43	67
		18654	9800	< 0.8	**170**	46	< 0.5	**1.1**	3400	38	**31**	**700**	22000	110	2000	130	< 1.5	**620**	**3**	31	32	39
5037605 Morlock St. (back yard)	0-5 cm	18655	10000	**2**	**53**	46	< 0.5	**2.3**	5200	45	**42**	**650**	20000	**180**	2700	190	**3.9**	**560**	**2**	35	31	62
		18656	11000	**2.3**	**52**	47	< 0.5	**2.2**	5500	44	**47**	**670**	21000	**200**	2800	210	**3.8**	**620**	**3**	36	32	64
	5-10 cm	18657	10000	**3.4**	**160**	54	< 0.5	1	4500	41	**32**	**610**	24000	**250**	2600	190	< 1.5	**520**	**3**	27	30	52
		18658	9100	**2.8**	**110**	45	< 0.5	0.9	3600	35	**24**	**510**	20000	**190**	2500	160	< 1.5	**380**	**3**	18	26	46
	10-20 cm	18659	8000	**1.4**	**130**	40	< 0.5	< 0.8	2600	30	18	**530**	17000	95	2100	140	< 1.5	**290**	**3**	14	24	36
		18660	7200	**1.4**	**140**	39	< 0.5	< 0.8	2600	36	**25**	**880**	18000	110	1900	120	< 1.5	**470**	**4**	12	21	42

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit.　NG - no guideline.　All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037510 Parkinson St. (front yard)	0-5 cm	15553	8500	< 0.8	< 5	28	< 0.5	< 0.8	3000	29	11	55	12000	11	2200	160	< 1.5	**110**	< 1	20	24	28
		15554	7600	< 0.8	6	27	< 0.5	< 0.8	2900	28	12	62	11000	12	2100	160	1.8	**130**	< 1	18	23	29
	5-10 cm	15555	7700	< 0.8	< 5	24	< 0.5	< 0.8	2500	26	5	13	11000	4	2400	160	< 1.5	27	< 1	17	23	16
		15556	8200	< 0.8	< 5	25	< 0.5	< 0.8	3000	28	5	12	12000	4	2500	180	< 1.5	26	< 1	26	26	17
	10-20 cm	15557	8200	< 0.8	< 5	27	< 0.5	< 0.8	3000	27	5	14	11000	4	2400	180	< 1.5	31	< 1	26	25	22
		15558	11000	< 0.8	< 5	34	< 0.5	< 0.8	4500	35	5	19	14000	5	3000	220	< 1.5	34	< 1	40	32	20
5037511 Parkinson St. (back yard)	0-5 cm	15559	13000	< 0.8	< 5	42	< 0.5	< 0.8	5100	35	8	50	14000	13	2300	200	< 1.5	**97**	< 1	46	32	31
		15560	17000	< 0.8	11	54	< 0.5	1	4300	49	14	**110**	22000	25	3600	230	2.4	**200**	< 1	33	44	57
	5-10 cm	15561	9300	< 0.8	13	33	< 0.5	< 0.8	2800	28	8	**93**	12000	50	2100	140	< 1.5	**100**	< 1	24	26	25
		15562	9900	< 0.8	13	34	< 0.5	< 0.8	3200	29	8	**100**	13000	17	2100	160	< 1.5	**110**	< 1	29	28	27
	10-20 cm	15563	7600	< 0.8	**38**	42	< 0.5	0.8	4100	29	16	**280**	15000	36	2200	150	< 1.5	**280**	1	17	26	41
		15564	8800	< 0.8	**34**	45	< 0.5	< 0.8	6400	31	15	**200**	15000	31	2200	180	< 1.5	**220**	1	28	32	41
5037584 Parkinson St. (front yard) same as 5037510	0-5 cm	18529	10000	< 0.8	6	31	< 0.5	< 0.8	5200	29	12	56	13000	13	2300	200	2	**100**	< 1	39	29	29
		18530	9600	< 0.8	< 5	28	< 0.5	< 0.8	3900	28	11	52	13000	11	2300	180	< 1.5	**91**	< 1	33	28	27
	5-10 cm	18531	8800	< 0.8	< 5	26	< 0.5	< 0.8	3500	27	5	9.5	12000	4	2500	190	< 1.5	22	< 1	29	26	16
		18532	9800	< 0.8	< 5	27	< 0.5	< 0.8	3700	27	5	13	12000	5	2500	190	< 1.5	28	< 1	35	28	18
	10-20 cm	18533	8600	< 0.8	< 5	28	< 0.5	< 0.8	3600	26	5	13	12000	5	2400	190	< 1.5	25	< 1	31	26	17
		18534	11000	< 0.8	< 5	37	< 0.5	< 0.8	5300	32	6	17	14000	6	2800	220	< 1.5	32	< 1	47	31	20
5037585 Parkinson St. (back yard) same as 5037511	0-5 cm	18535	12000	< 0.8	9	37	< 0.5	< 0.8	4500	29	11	**110**	14000	17	2200	180	< 1.5	**210**	< 1	43	30	33
		18536	12000	< 0.8	7	43	< 0.5	< 0.8	5400	31	9	69	14000	23	2300	190	< 1.5	**140**	< 1	46	31	36
	5-10 cm	18537	12000	< 0.8	**21**	42	< 0.5	< 0.8	4300	28	8	**120**	15000	21	2600	180	< 1.5	**100**	< 1	40	31	28
		18538	11000	< 0.8	17	38	< 0.5	< 0.8	4500	29	11	**150**	15000	27	2300	180	< 1.5	**140**	< 1	42	30	34
	10-20 cm	18539	8900	< 0.8	**46**	43	< 0.5	< 0.8	5600	26	16	**290**	15000	39	2300	180	< 1.5	**290**	1	32	28	41
		18540	9100	< 0.8	**34**	44	< 0.5	0.8	5800	27	18	**320**	14000	33	2200	190	< 1.5	**330**	1	31	28	45

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037558 Parkinson St. (front yard)	0-5 cm	15934	7100	1	98	53	< 0.5	3	11000	45	69	970	22000	130	5700	150	2.9	1300	3	22	25	130
		15935	9600	< 0.8	180	56	< 0.5	2.6	9800	53	86	1400	29000	140	3800	170	1.9	1600	4	35	32	120
	5-10 cm	15936	11000	0.8	290	59	< 0.5	2.2	7000	56	87	1700	33000	160	2600	170	< 1.5	1800	6	31	33	110
		15937	9900	< 0.8	260	59	< 0.5	1.7	6100	53	77	1500	31000	150	2600	150	< 1.5	1700	5	27	32	90
	10-20 cm	15938	10000	< 0.8	210	60	< 0.5	1.3	4200	43	56	900	25000	95	2700	150	< 1.5	1200	4	25	32	75
		15939	10000	< 0.8	130	66	< 0.5	< 0.8	3700	39	27	510	18000	55	2000	150	< 1.5	580	2	26	32	47
5037559 Parkinson St. (back yard)	0-5 cm	15940	8900	1.1	140	54	< 0.5	1.8	6400	43	50	790	21000	100	2700	170	1.8	890	3	28	29	90
		15941	9200	< 0.8	150	58	< 0.5	2	6600	43	52	950	22000	140	3000	160	< 1.5	980	3	29	30	100
	5-10 cm	15942	9600	< 0.8	210	53	< 0.5	2.3	6200	46	68	1200	25000	140	2500	160	< 1.5	1400	5	31	31	100
		15943	10000	< 0.8	210	54	< 0.5	1.4	6600	44	57	1100	26000	140	2400	160	< 1.5	1100	5	36	32	110
	10-20 cm	15944	10000	< 0.8	130	48	< 0.5	< 0.8	4200	40	36	670	19000	85	2200	150	< 1.5	730	3	35	31	87
		15945	10000	< 0.8	160	49	< 0.5	1	5100	43	42	930	21000	120	2200	150	< 1.5	890	4	36	31	110
5037560 Parkinson St. (front yard)	0-5 cm	15946	9500	0.9	160	69	< 0.5	3.7	12000	70	150	2200	38000	260	2900	230	3.7	2800	6	45	39	210
		15947	9000	< 0.8	130	64	< 0.5	3.1	11000	59	130	1900	31000	230	2700	240	3.6	2400	6	38	37	200
	5-10 cm	15948	10000	< 0.8	290	65	< 0.5	3.3	13000	75	95	1500	32000	220	2500	180	< 1.5	2000	6	40	33	180
		15949	9600	0.9	310	63	< 0.5	3.7	13000	75	110	1800	41000	220	2700	180	< 1.5	2300	6	41	33	210
	10-20 cm	15950	7300	0.9	150	44	< 0.5	1.4	4500	36	36	450	16000	86	1600	140	< 1.5	730	3	12	22	83
		15951	7400	< 0.8	130	39	< 0.5	< 0.8	4100	32	20	270	13000	53	1500	110	< 1.5	460	2	12	23	54
5037561 Parkinson St. (back yard)	0-5 cm	15952	8500	0.8	130	66	< 0.5	4.6	9600	53	110	1900	29000	190	2600	170	2.4	2200	5	36	28	160
		15953	8600	< 0.8	160	66	< 0.5	4.3	14000	54	120	2100	33000	200	2800	180	1.7	2600	5	40	30	180
	5-10 cm	15954	8800	< 0.8	240	47	< 0.5	2.8	7200	45	74	1300	25000	150	2200	150	< 1.5	1600	5	31	28	140
		15955	8900	< 0.8	180	40	< 0.5	1.7	5900	38	48	710	19000	96	2000	160	< 1.5	950	3	30	28	110
	10-20 cm	15956	9200	< 0.8	60	37	< 0.5	< 0.8	3500	24	16	180	14000	27	1800	150	< 1.5	310	1	30	27	35
		15957	9200	< 0.8	69	44	< 0.5	< 0.8	3500	26	17	200	14000	43	1800	160	< 1.5	330	1	30	28	52

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit.   NG - no guideline.   All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037580 Parkinson St. (front yard)	0-5 cm	18504	9300	< 0.8	**26**	33	< 0.5	**1.8**	7900	47	**32**	**280**	15000	43	2400	130	**4.9**	**350**	1	34	28	57
		18505	9400	< 0.8	**31**	32	< 0.5	**1.8**	7300	41	**28**	**260**	15000	43	2400	140	**4.1**	**340**	1	33	28	65
	5-10 cm	18506	10000	< 0.8	**65**	35	< 0.5	0.9	6300	33	**26**	**450**	16000	51	2100	130	< 1.5	**490**	**2**	27	27	50
		18507	8800	< 0.8	**90**	34	< 0.5	**1.1**	4400	30	**33**	**570**	18000	62	1900	120	< 1.5	**650**	**2**	16	25	55
	10-20 cm	18508	11000	< 0.8	**270**	66	< 0.5	**2.1**	8400	50	**56**	**1100**	27000	**160**	2100	150	1.7	**1200**	**5**	24	34	99
		18509	9800	< 0.8	**220**	61	< 0.5	**1.5**	6700	44	**52**	**940**	24000	120	2100	140	< 1.5	**1100**	**4**	24	32	78
5037581 Parkinson St. (back yard)	0-5 cm	18511	7600	< 0.8	**29**	26	< 0.5	0.9	3900	31	18	**180**	12000	29	2200	130	**3**	**210**	1	24	23	47
		18512	10000	< 0.8	**46**	45	< 0.5	**1.1**	6500	40	**23**	**260**	15000	44	2400	160	**3.3**	**280**	**2**	37	29	51
	5-10 cm	18513	10000	< 0.8	**43**	38	< 0.5	< 0.8	3900	27	13	**220**	14000	30	2200	160	< 1.5	**180**	1	35	26	30
		18514	9200	< 0.8	**49**	31	< 0.5	< 0.8	3900	26	15	**270**	15000	35	2000	150	< 1.5	**230**	1	31	25	33
	10-20 cm	18515	10000	< 0.8	**97**	49	< 0.5	0.8	4800	34	**31**	**620**	20000	84	2300	170	< 1.5	**560**	**2**	37	28	53
		18516	10000	< 0.8	**110**	50	< 0.5	0.9	4700	36	**33**	**600**	21000	83	2200	170	< 1.5	**570**	**3**	37	29	52
5037536 Rix St. (front yard)	0-5 cm	15802	8900	< 0.8	**160**	51	< 0.5	**2.9**	12000	**73**	**98**	**1600**	32000	**130**	2700	130	< 1.5	**2000**	**5**	34	27	110
		15803	9900	< 0.8	**105**	68	< 0.5	**3.8**	27000	61	**92**	**1400**	28000	**140**	3300	170	2.4	**1700**	**4**	46	30	110
	5-10 cm	15804	8600	0.9	**84**	59	< 0.5	**3.2**	33000	49	**93**	**1400**	27000	120	3800	160	2.4	**1700**	**3**	45	29	100
		15805	9300	< 0.8	**110**	48	< 0.5	**1.9**	10000	62	**54**	**940**	21000	93	2400	110	< 1.5	**1100**	**4**	31	25	67
	10-20 cm	15806	8900	< 0.8	**56**	41	< 0.5	< 0.8	5700	30	17	**210**	11000	25	2100	97	< 1.5	**430**	**2**	27	23	31
		15807	9300	0.9	**57**	48	< 0.5	< 0.8	6500	33	19	**270**	11000	34	2100	98	< 1.5	**470**	**2**	28	23	29
5037537 Rix St. (back yard)	0-5 cm	15808	8100	< 0.8	**94**	67	< 0.5	**4.6**	38000	48	**120**	**2100**	31000	**180**	3200	150	**3.3**	**2400**	**5**	46	27	140
		15809	8400	< 0.8	**80**	72	< 0.5	**4.7**	40000	48	**95**	**1600**	26000	**150**	3500	160	**3.1**	**1700**	**4**	49	28	140
	5-10 cm	15810	9400	< 0.8	**92**	60	< 0.5	**1.8**	10000	36	**51**	**990**	17000	93	2000	110	< 1.5	**1300**	**4**	30	22	67
		15811	10000	< 0.8	**120**	65	< 0.5	**2.4**	14000	35	**68**	**1400**	22000	120	2200	120	< 1.5	**1700**	**5**	34	24	95
	10-20 cm	15812	8700	< 0.8	**64**	54	< 0.5	< 0.8	6800	29	**23**	**330**	12000	39	2200	110	< 1.5	**550**	**2**	28	21	43
		15813	8800	< 0.8	**72**	56	< 0.5	1	7400	34	**31**	**430**	12000	46	1800	98	< 1.5	**820**	**3**	26	21	47

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037552 Rix St. (front yard)	0-5 cm	15898	7600	0.8	**87**	50	< 0.5	**2.4**	10000	**75**	**86**	**1200**	27000	**130**	4400	170	**6.6**	**1300**	**4**	31	30	98
		15899	6900	< 0.8	**97**	60	< 0.5	**3.5**	12000	**73**	**110**	**1400**	27000	**180**	4000	180	**7.6**	**1500**	**4**	35	27	130
	5-10 cm	15900	9000	1	**220**	59	< 0.5	**2.9**	8800	**75**	**97**	**1800**	37000	**170**	2600	160	< 1.5	**1900**	**5**	29	29	140
		15901	8700	0.8	**150**	58	< 0.5	**1.9**	6300	49	**68**	**1000**	26000	110	2400	170	< 1.5	**1400**	**3**	26	28	110
	10-20 cm	15902	9500	< 0.8	**95**	51	< 0.5	0.9	4600	31	**29**	**320**	15000	30	2100	150	< 1.5	**600**	**2**	25	27	55
		15903	7200	< 0.8	**85**	59	< 0.5	1	4900	33	**38**	**380**	12000	52	2200	190	< 1.5	**790**	**2**	33	29	61
5037553 Rix St. (back yard)	0-5 cm	15904	7800	**2.5**	**190**	56	< 0.5	**4.1**	7100	56	**76**	**1600**	30000	**180**	2800	150	< 1.5	**1700**	**5**	34	28	**210**
		15905	7400	**3.8**	**220**	53	< 0.5	**3.9**	5900	51	**77**	**1600**	31000	**170**	2500	140	< 1.5	**1800**	**5**	24	26	**240**
	5-10 cm	15906	9500	< 0.8	**140**	41	< 0.5	**1.3**	3600	29	**33**	**510**	18000	63	1800	150	< 1.5	**910**	**3**	26	29	96
		15907	8700	< 0.8	**100**	34	< 0.5	< 0.8	3100	23	**24**	**320**	15000	36	1600	140	< 1.5	**680**	**2**	26	26	54
	10-20 cm	15908	9500	< 0.8	**37**	45	< 0.5	< 0.8	3100	22	13	**110**	14000	20	1800	160	< 1.5	**260**	< 1	27	27	29
		15909	12000	< 0.8	**55**	62	< 0.5	< 0.8	3900	29	19	**190**	16000	34	1900	180	< 1.5	**400**	1	36	30	39
5037554 Rix St. (front yard)	0-5 cm	15910	7300	< 0.8	**110**	55	< 0.5	**3.1**	5400	49	**69**	**1100**	29000	**150**	2600	160	< 1.5	**1200**	1	26	27	110
		15911	8700	< 0.8	**140**	64	< 0.5	**3.4**	7400	59	**64**	**920**	28000	**200**	2000	180	< 1.5	**1200**	**4**	31	30	160
	5-10 cm	15912	9600	< 0.8	**170**	60	< 0.5	**4.8**	13000	**120**	**66**	**800**	29000	96	2400	160	< 1.5	**1300**	**4**	35	28	120
		15913	9000	< 0.8	**180**	52	< 0.5	**1.9**	4700	43	**38**	**730**	21000	**170**	1900	160	< 1.5	**800**	**4**	29	28	120
	10-20 cm	15914	11000	< 0.8	**82**	59	< 0.5	< 0.8	5600	35	**25**	**220**	15000	38	2200	150	< 1.5	**450**	**5**	34	29	37
		15915	11000	< 0.8	**120**	64	< 0.5	1	4700	34	**26**	**400**	16000	86	2000	190	< 1.5	**560**	**3**	36	31	87
5037555 Rix St. (back yard)	0-5 cm	15916	10000	< 0.8	**120**	75	< 0.5	**2.4**	7100	37	**55**	**1000**	23000	**170**	2300	200	< 1.5	**1100**	**3**	39	31	140
		15917	8400	< 0.8	**120**	62	< 0.5	**2.8**	6500	33	**56**	**1000**	22000	**160**	2200	190	1.7	**1100**	**3**	30	27	140
	5-10 cm	15918	14000	0.9	**120**	87	< 0.5	**1.4**	8200	33	**38**	**690**	25000	**180**	2300	220	< 1.5	**760**	**3**	41	31	140
		15919	9400	0.8	**120**	64	< 0.5	**1.3**	6500	30	**45**	**640**	20000	**130**	2000	210	< 1.5	**850**	**3**	31	29	130
	10-20 cm	15920	9100	< 0.8	**94**	58	< 0.5	< 0.8	4800	26	21	**260**	15000	64	2000	200	< 1.5	**380**	< 1	30	28	76
		15921	9600	< 0.8	**110**	71	< 0.5	0.9	6700	30	**30**	**450**	18000	120	2100	200	< 1.5	**580**	**2**	35	29	120

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037612 Rix St. (front yard)	0-5 cm	18697	8400	< 0.8	**180**	46	< 0.5	**3.1**	7100	51	**73**	**1200**	29000	120	3400	160	**4.1**	**1200**	**5**	27	29	88
		18698	9200	< 0.8	**140**	53	< 0.5	**3.2**	7300	51	**65**	**1000**	26000	**130**	2900	170	**3.6**	**1000**	**5**	30	30	100
	5-10 cm	18699	10000	< 0.8	**370**	56	< 0.5	**2.5**	6700	51	**92**	**1900**	40000	**170**	3000	190	1.8	**1800**	**7**	29	34	100
		18700	9900	< 0.8	**350**	62	< 0.5	**2.7**	6400	52	**92**	**2000**	40000	**180**	2600	210	1.9	**1900**	**7**	28	33	110
	10-20 cm	18701	9800	< 0.8	**100**	45	< 0.5	< 0.8	3300	26	**34**	**440**	17000	38	1900	150	< 1.5	**690**	**2**	27	27	55
		18702	10000	< 0.8	**180**	54	< 0.5	**1.2**	4200	31	**49**	**800**	21000	71	2100	170	< 1.5	**1000**	**4**	27	29	76
5037613 Rix St. (back yard)	0-5 cm	18703	8400	< 0.8	**100**	53	< 0.5	**4.9**	8100	40	**66**	**1200**	23000	91	2900	190	**2.7**	**1200**	**4**	30	28	86
		18704	9500	< 0.8	**130**	54	< 0.5	**1.3**	7200	32	**41**	**800**	21000	63	2300	270	< 1.5	**820**	**3**	25	35	61
	5-10 cm	18705	10000	< 0.8	**110**	51	< 0.5	1	5200	29	**32**	**510**	20000	48	2200	260	< 1.5	**700**	**2**	25	35	58
		18706	8900	< 0.8	**150**	46	< 0.5	< 0.8	3400	27	17	**410**	18000	48	2100	160	< 1.5	**300**	**3**	25	29	37
	10-20 cm	18707	8600	< 0.8	**105**	46	< 0.5	**2.5**	6200	35	**46**	**440**	22000	45	2900	180	**3**	**280**	**3**	28	30	76
		18708	11000	< 0.8	**100**	54	< 0.5	< 0.8	4200	28	16	**360**	17000	36	2200	170	< 1.5	**280**	**2**	36	32	34

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Sudbury (Core)																						
5037905 Albinson St. (back yard)	0 - 5 cm	18882	12000	< 0.8	16	110	< 0.5	**1.5**	7200	40	**35**	**820**	24000	97	3300	220	< 1.5	**940**	**5**	48	34	110
		18883	13000	< 0.8	**18**	110	< 0.5	**1.8**	7900	42	**34**	**880**	24000	98	3600	230	< 1.5	**900**	**5**	49	36	110
	5 - 10 cm	18884	15000	< 0.8	9	110	< 0.5	< 0.8	4200	39	10	**180**	17000	40	3200	230	< 1.5	**230**	< 1	46	35	70
		18885	12000	< 0.8	14	100	< 0.5	< 0.8	4100	35	14	**270**	18000	76	3200	230	< 1.5	**340**	1	43	33	81
	10 - 20 cm	18886	14000	< 0.8	6	110	< 0.5	< 0.8	4300	36	8	**110**	17000	37	3100	230	< 1.5	**160**	< 1	48	34	63
		18887	12000	< 0.8	6	87	< 0.5	< 0.8	3800	32	8	**120**	15000	26	2600	200	< 1.5	**160**	< 1	43	31	50
5037894 Anderson Ave. (back yard)	0 - 5 cm	17514	12000	< 0.8	9	150	< 0.5	**1.8**	12000	35	**22**	**460**	19000	120	3400	900	< 1.5	**430**	< 1	67	34	**170**
		17515	9900	< 0.8	9	210	< 0.5	**1.9**	15000	37	**22**	**430**	17000	110	3100	1200	< 1.5	**440**	**3**	84	30	**230**
	5 - 10 cm	17516	11000	< 0.8	8	72	< 0.5	< 0.8	6500	31	10	**130**	16000	25	2900	410	< 1.5	**150**	< 1	43	34	62
		17517	11000	< 0.8	7	78	< 0.5	< 0.8	6800	31	8	**110**	16000	20	2800	480	< 1.5	**120**	< 1	44	33	61
	10 - 20 cm	17518	12000	< 0.8	7	69	< 0.5	< 0.8	5700	31	9	**110**	16000	20	2900	380	< 1.5	**130**	< 1	43	34	61
		17519	10000	< 0.8	6	39	< 0.5	< 0.8	2900	29	8	81	15000	10	2700	210	< 1.5	**84**	< 1	24	31	30
5037964 Antwerp Ave. (back yard)	0 - 5 cm	20857	10000	< 0.8	16	71	< 0.5	**1.5**	4400	37	**26**	**490**	21000	120	3700	220	< 1.5	**560**	**3**	32	29	120
		20858	8800	< 0.8	**22**	80	< 0.5	**1.6**	4600	37	**28**	**640**	22000	**150**	3600	210	< 1.5	**650**	**4**	29	27	150
	5 - 10 cm	20859	9600	< 0.8	**18**	88	< 0.5	0.9	3600	35	**22**	**380**	21000	**140**	3000	240	< 1.5	**450**	**2**	34	29	140
		20860	9000	< 0.8	**22**	78	< 0.5	**1.1**	3500	35	**22**	**450**	19000	110	3000	230	< 1.5	**500**	**3**	28	27	150
	10 - 20 cm	20861	11000	< 0.8	**20**	98	< 0.5	1.0	4000	42	**24**	**430**	24000	**130**	4200	290	< 1.5	**560**	**2**	38	33	160
		20862	12000	< 0.8	**19**	110	< 0.5	**1.2**	4600	46	**25**	**400**	25000	**130**	4500	330	< 1.5	**550**	**2**	44	36	**170**
5037898 Ash St. (back yard)	0 - 5 cm	18840	8200	< 0.8	**33**	64	< 0.5	**3.1**	6800	67	**30**	**730**	19000	97	1500	150	1.7	**980**	**4**	23	23	120
		18841	8500	**1.1**	**34**	80	< 0.5	**2.7**	6300	51	**34**	**770**	20000	120	1600	140	< 1.5	**1100**	**4**	26	24	150
	5 - 10 cm	18842	8400	< 0.8	15	61	< 0.5	< 0.8	3200	37	8	**210**	13000	40	1400	150	< 1.5	**240**	1	24	24	69
		18843	11000	< 0.8	17	67	< 0.5	< 0.8	4400	39	9	**200**	14000	38	1400	160	< 1.5	**300**	1	35	28	79
	10 - 20 cm	18844	12000	< 0.8	10	57	< 0.5	< 0.8	3700	30	7	**120**	14000	18	1600	160	< 1.5	**150**	< 1	33	28	36
		18845	10000	< 0.8	7	40	< 0.5	< 0.8	3300	24	6	85	12000	13	1500	130	< 1.5	**110**	< 1	30	25	33
5037903 Ash St. (back yard)	0 - 5 cm	18870	11000	< 0.8	9	61	< 0.5	**1.1**	6700	35	16	**310**	19000	34	3500	260	< 1.5	**320**	**2**	37	32	92
		18871	8700	< 0.8	8	60	< 0.5	**1.4**	6100	33	19	**410**	19000	49	3500	250	< 1.5	**380**	**3**	26	28	110
	5 - 10 cm	18872	8900	< 0.8	8	58	< 0.5	< 0.8	5600	30	11	**240**	16000	25	3100	250	< 1.5	**210**	1	25	28	69
		18873	8600	< 0.8	8	61	< 0.5	< 0.8	5200	31	13	**250**	17000	34	3400	250	< 1.5	**240**	**2**	25	30	94
	10 - 20 cm	18874	10000	< 0.8	7	62	< 0.5	< 0.8	6600	31	9	**150**	17000	18	3100	260	< 1.5	**150**	1	32	30	57
		18875	9700	< 0.8	10	71	< 0.5	< 0.8	6400	33	11	**180**	18000	23	3500	270	< 1.5	**180**	1	31	32	60

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037967 Bessie Ave. (back yard)	0 - 5 cm	20875	8600	< 0.8	12	86	< 0.5	0.9	6700	33	15	**290**	17000	85	3400	220	< 1.5	**320**	**2**	37	31	140
		20876	9800	< 0.8	13	95	< 0.5	0.9	7000	36	17	**300**	18000	87	3600	240	< 1.5	**360**	**2**	42	33	130
	5 - 10 cm	20877	6000	< 0.8	10	77	< 0.5	< 0.8	6000	26	11	**160**	14000	100	3700	180	< 1.5	**230**	1	29	25	87
		20878	7000	< 0.8	8	72	< 0.5	< 0.8	5900	27	11	**180**	15000	58	3300	190	< 1.5	**230**	1	34	29	80
	10 - 20 cm	20879	6500	< 0.8	6	55	< 0.5	< 0.8	7600	26	10	**140**	14000	52	4200	180	< 1.5	**180**	< 1	35	27	57
		20880	9000	< 0.8	5	67	< 0.5	< 0.8	8200	30	9	**97**	14000	37	4300	190	< 1.5	**140**	< 1	44	28	46
5037962 Bloor St. (back yard)	0 - 5 cm	20845	12000	< 0.8	13	120	< 0.5	**1.3**	5600	39	21	**390**	19000	**140**	3000	300	< 1.5	**440**	**2**	50	32	160
		20846	12000	< 0.8	12	120	< 0.5	**1.5**	5800	39	**24**	**440**	20000	**160**	3000	230	< 1.5	**540**	**2**	48	31	**170**
	5 - 10 cm	20847	9300	1.0	**18**	120	< 0.5	< 0.8	3500	30	19	**310**	18000	**140**	2200	230	< 1.5	**440**	**2**	42	28	150
		20848	9500	0.9	**18**	120	< 0.5	< 0.8	3600	31	20	**360**	19000	**140**	2400	210	< 1.5	**480**	**2**	41	28	150
	10 - 20 cm	20849	8800	**1.3**	**21**	170	< 0.5	0.9	3400	29	18	**330**	19000	**150**	2000	240	< 1.5	**490**	**2**	45	26	**200**
		20850	8500	**1.1**	**22**	150	< 0.5	0.9	3300	28	17	**310**	18000	**150**	2100	250	< 1.5	**450**	**2**	43	26	**190**
5037994 Boland Ave. (front yard)	0 - 5 cm	21078	9600	< 0.8	< 5	37	< 0.5	< 0.8	4100	31	8	**110**	13000	17	2700	200	< 1.5	**110**	1	37	29	32
		21079	9900	< 0.8	< 5	36	< 0.5	< 0.8	4100	31	7	**91**	14000	14	2600	200	< 1.5	**95**	< 1	39	30	28
	5 - 10 cm	21080	9200	< 0.8	< 5	23	< 0.5	< 0.8	3200	27	5	34	12000	7	2000	190	< 1.5	39	< 1	31	27	19
		21081	9800	< 0.8	< 5	28	< 0.5	< 0.8	3500	27	5	39	12000	8	2000	200	< 1.5	43	< 1	36	28	19
	10 - 20 cm	21082	8900	< 0.8	< 5	32	< 0.5	< 0.8	3200	26	6	53	12000	9	2000	190	< 1.5	**63**	< 1	30	27	21
		21083	7600	< 0.8	< 5	31	< 0.5	< 0.8	2300	24	6	62	11000	11	2000	170	< 1.5	**63**	< 1	20	24	20
5037959 Bond St. (front yard)	0 - 5 cm	20827	11000	0.9	**32**	79	< 0.5	**1.2**	4100	37	**44**	**850**	27000	**170**	2700	190	< 1.5	**860**	**2**	40	31	110
		20828	11000	0.9	**32**	87	< 0.5	**1.5**	4200	42	**46**	**810**	28000	**200**	2800	190	< 1.5	**1000**	**3**	40	31	120
	5 - 10 cm	20829	8500	< 0.8	12	52	< 0.5	< 0.8	2600	25	10	**260**	14000	38	2200	160	< 1.5	**224**	1	28	24	54
		20830	9900	< 0.8	**24**	63	< 0.5	0.9	3400	30	18	**470**	20000	**75**	2300	180	< 1.5	**446**	**2**	36	28	75
	10 - 20 cm	20831	8000	< 0.8	< 5	51	< 0.5	< 0.8	2700	23	6	50	12000	12	2100	140	< 1.5	**97**	< 1	31	24	31
		20832	7900	< 0.8	< 5	38	< 0.5	< 0.8	2700	24	7	81	12000	15	2100	150	< 1.5	**130**	< 1	31	24	32
5037960 Brebeuf Ave. (back yard)	0 - 5 cm	20833	9100	< 0.8	10	43	< 0.5	1.0	4100	32	17	**330**	16000	40	2300	180	1.8	**400**	**2**	36	31	50
		20834	9000	< 0.8	12	43	< 0.5	**1.5**	4500	33	**24**	**480**	17000	65	2300	190	< 1.5	**570**	**3**	36	31	75
	5 - 10 cm	20835	7600	< 0.8	< 5	29	< 0.5	< 0.8	2800	24	5	40	11000	6	2200	140	< 1.5	**58**	< 1	27	25	17
		20836	8600	< 0.8	< 5	32	< 0.5	< 0.8	3100	25	6	72	12000	9	2200	150	< 1.5	**83**	< 1	31	28	26
	10 - 20 cm	20837	9200	< 0.8	< 5	38	< 0.5	< 0.8	3200	26	6	39	13000	9	2500	150	< 1.5	**59**	< 1	32	27	22
		20838	7600	< 0.8	< 5	27	< 0.5	< 0.8	2400	23	6	42	12000	7	2200	130	< 1.5	**48**	< 1	23	25	24

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037951 Brock St. (front yard)	0 - 5 cm	20779	11000	< 0.8	7	43	< 0.5	< 0.8	4900	35	11	**150**	16000	33	3100	190	< 1.5	**150**	**2**	38	30	59
		20780	10000	< 0.8	6	43	< 0.5	< 0.8	4700	33	11	**150**	15000	32	3000	200	< 1.5	**160**	**2**	35	30	64
	5 - 10 cm	20781	9600	< 0.8	< 5	25	< 0.5	< 0.8	3200	28	7	56	14000	9	2500	150	< 1.5	**60**	1	31	30	22
		20782	9400	< 0.8	9	24	< 0.5	< 0.8	2900	27	7	60	14000	10	2300	140	< 1.5	**64**	1	27	29	43
	10 - 20 cm	20783	12000	< 0.8	8	37	< 0.5	< 0.8	3000	28	11	**110**	17000	20	2600	190	**2.9**	**140**	**2**	29	32	35
		20784	11000	< 0.8	6	33	< 0.5	< 0.8	3200	29	9	**90**	15000	22	2500	180	< 1.5	**110**	**2**	32	31	41
5037970 Bruce Ave. (back yard)	0 - 5 cm	20893	11000	< 0.8	9	91	< 0.5	< 0.8	11000	34	11	**210**	15000	55	3500	300	< 1.5	**240**	**2**	47	34	**180**
		20894	10000	< 0.8	11	92	< 0.5	**1.2**	10000	34	12	**230**	15000	61	3500	300	< 1.5	**260**	**2**	47	34	**200**
	5 - 10 cm	20895	11000	< 0.8	10	95	< 0.5	1.0	12000	34	12	**210**	16000	57	3600	300	< 1.5	**260**	**2**	48	35	**180**
		20896	11000	< 0.8	11	89	< 0.5	0.9	10000	34	12	**210**	15000	59	3400	290	< 1.5	**260**	1	47	35	**180**
	10 - 20 cm	20897	11000	< 0.8	11	87	< 0.5	< 0.8	8500	33	10	**180**	15000	48	2900	270	< 1.5	**200**	1	47	35	160
		20898	11000	0.9	11	92	< 0.5	< 0.8	8300	32	10	**170**	15000	75	2800	260	< 1.5	**200**	1	46	34	**180**
5037906 Buchanan St. (front yard)	0 - 5 cm	18888	8400	< 0.8	7	34	< 0.5	< 0.8	3800	29	9	**200**	13000	26	2200	160	< 1.5	**210**	1	28	25	44
		18889	8100	< 0.8	7	30	< 0.5	< 0.8	3400	28	10	**180**	13000	25	2100	150	< 1.5	**220**	1	26	26	45
	5 - 10 cm	18890	7600	< 0.8	7	25	< 0.5	< 0.8	2500	28	9	**120**	12000	18	1900	140	< 1.5	**190**	< 1	20	24	28
		18891	7200	< 0.8	8	25	< 0.5	< 0.8	2800	24	9	**130**	12000	17	1800	140	< 1.5	**220**	< 1	22	23	33
	10 - 20 cm	18892	7200	< 0.8	< 5	26	< 0.5	< 0.8	2300	23	6	50	11000	8	1800	130	< 1.5	**85**	< 1	21	24	19
		18893	7100	< 0.8	< 5	24	< 0.5	< 0.8	2100	21	5	43	11000	7	1900	120	< 1.5	**70**	< 1	17	23	18
5037965 Burton Ave. (front yard)	0 - 5 cm	20863	9900	< 0.8	9	80	< 0.5	0.9	6500	31	14	**220**	15000	73	2700	230	< 1.5	**240**	**2**	42	34	100
		20864	11000	< 0.8	9	87	< 0.5	0.9	6900	33	15	**210**	16000	63	2900	230	< 1.5	**240**	**2**	45	35	98
	5 - 10 cm	20865	9100	< 0.8	10	88	< 0.5	< 0.8	4800	27	12	**150**	15000	86	2300	200	< 1.5	**210**	1	40	30	100
		20866	9500	< 0.8	9	97	< 0.5	< 0.8	4900	28	11	**150**	14000	98	2300	200	2.1	**180**	1	41	31	100
	10 - 20 cm	20867	9900	< 0.8	7	100	< 0.5	< 0.8	5100	31	10	**110**	14000	87	2600	200	< 1.5	**160**	< 1	42	31	100
		20868	7200	< 0.8	10	130	< 0.5	< 0.8	4600	24	8	**110**	13000	91	2500	180	< 1.5	**140**	< 1	34	27	120
5037966 Burton Ave. (side yard)	0 - 5 cm	20869	8200	< 0.8	16	36	< 0.5	< 0.8	4900	27	21	**420**	20000	48	2900	200	< 1.5	**480**	**2**	25	31	56
		20870	7800	< 0.8	17	33	< 0.5	< 0.8	4900	27	19	**410**	18000	49	3000	170	< 1.5	**440**	**2**	24	29	50
	5 - 10 cm	20871	7700	< 0.8	11	24	< 0.5	< 0.8	2700	21	8	**130**	14000	13	2300	180	< 1.5	**120**	1	21	27	28
		20872	7500	< 0.8	12	24	< 0.5	< 0.8	2700	20	10	**170**	14000	18	2100	170	< 1.5	**170**	< 1	20	26	27
	10 - 20 cm	20873	5300	< 0.8	< 5	19	< 0.5	< 0.8	2700	20	6	33	12000	5	2700	150	< 1.5	35	< 1	21	24	21
		20874	5600	< 0.8	< 5	17	< 0.5	< 0.8	2400	20	6	42	12000	6	2600	150	< 1.5	42	< 1	19	24	21

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028001 Charlotte St. (back yard)	0 - 5 cm	21114	11000	< 0.8	8	54	< 0.5	**1.2**	11000	32	18	**400**	18000	66	6000	210	< 1.5	**360**	**3**	36	29	86
		21115	11000	< 0.8	7	56	< 0.5	**1.2**	10000	34	21	**400**	19000	63	5500	210	< 1.5	**400**	**3**	38	29	90
	5 - 10 cm	21116	11000	< 0.8	5	53	< 0.5	< 0.8	6400	34	12	**230**	18000	46	4300	220	< 1.5	**180**	1	33	32	58
		21117	12000	< 0.8	8	61	< 0.5	< 0.8	7500	36	14	**280**	18000	51	4600	210	< 1.5	**230**	**2**	38	32	74
	10 - 20 cm	21118	8700	< 0.8	< 5	48	< 0.5	< 0.8	4200	29	7	77	14000	15	3500	180	< 1.5	**73**	< 1	28	27	30
		21119	11000	< 0.8	5	64	< 0.5	< 0.8	5700	33	8	**110**	17000	23	3400	210	< 1.5	**120**	< 1	38	32	49
5037955 Dell St. (back yard)	0 - 5 cm	20803	8000	< 0.8	< 5	34	< 0.5	< 0.8	3400	26	6	40	12000	11	2300	150	< 1.5	**57**	< 1	29	26	24
		20804	8100	< 0.8	< 5	39	< 0.5	< 0.8	3400	25	7	40	12000	11	2300	140	< 1.5	**51**	< 1	28	26	27
	5 - 10 cm	20805	8400	< 0.8	< 5	35	< 0.5	< 0.8	3500	25	7	35	13000	8	2400	150	< 1.5	**48**	< 1	30	26	18
		20806	8300	< 0.8	< 5	34	< 0.5	< 0.8	3500	25	6	29	12000	9	2300	140	< 1.5	**44**	< 1	30	27	17
	10 - 20 cm	20807	7700	< 0.8	5	40	< 0.5	< 0.8	3000	26	13	71	14000	14	2700	160	< 1.5	**79**	< 1	21	26	45
		20808	11000	< 0.8	8	58	< 0.5	< 0.8	4400	33	12	**86**	16000	27	2900	220	< 1.5	**97**	< 1	42	32	52
5037956 Dell St. (back yard)	0 - 5 cm	20809	10000	< 0.8	< 5	42	< 0.5	< 0.8	4500	29	7	**98**	13000	22	2400	220	< 1.5	**110**	1	41	30	42
		20810	10000	< 0.8	< 5	37	< 0.5	< 0.8	3900	27	7	**95**	13000	21	2200	200	< 1.5	**110**	< 1	38	28	39
	5 - 10 cm	20811	7900	< 0.8	< 5	35	< 0.5	< 0.8	3800	26	8	**90**	11000	20	2300	170	< 1.5	**120**	< 1	35	26	34
		20812	7700	< 0.8	< 5	35	< 0.5	< 0.8	3500	25	7	71	11000	14	2200	160	< 1.5	**94**	< 1	33	25	31
	10 - 20 cm	20813	6600	< 0.8	< 5	29	< 0.5	< 0.8	3700	24	8	73	11000	21	2100	140	< 1.5	**110**	< 1	30	23	34
		20814	6900	< 0.8	< 5	34	< 0.5	< 0.8	3600	24	7	66	10000	16	2200	140	< 1.5	**100**	1	32	24	32
5037995 Dunvegan Ct. (back yard)	0 - 5 cm	21084	8000	< 0.8	13	47	< 0.5	**1.1**	4600	28	19	**450**	16000	42	2600	190	< 1.5	**440**	**3**	29	28	47
		21085	8000	< 0.8	14	45	< 0.5	0.9	4300	29	17	**370**	15000	35	2500	190	< 1.5	**380**	**3**	30	28	40
	5 - 10 cm	21086	10000	< 0.8	10	53	< 0.5	< 0.8	5200	31	10	**180**	15000	16	2900	210	< 1.5	**210**	1	37	32	33
		21087	11000	< 0.8	8	63	< 0.5	< 0.8	4900	33	10	**140**	15000	13	3000	210	< 1.5	**170**	1	39	34	30
	10 - 20 cm	21088	7000	< 0.8	< 5	36	< 0.5	< 0.8	3200	22	5	38	11000	4	2300	140	< 1.5	**46**	< 1	31	25	15
		21089	8100	< 0.8	< 5	44	< 0.5	< 0.8	3300	24	5	33	11000	4	2400	150	< 1.5	43	< 1	31	26	14
5037971 Dupont St. (back yard)	0 - 5 cm	20899	12000	< 0.8	16	75	< 0.5	0.9	9100	51	16	**300**	18000	47	3400	230	< 1.5	**370**	**2**	45	35	130
		20900	13000	< 0.8	**20**	84	< 0.5	0.9	9600	46	18	**330**	19000	48	3500	240	< 1.5	**420**	**2**	48	36	150
	5 - 10 cm	20901	13000	< 0.8	16	74	< 0.5	< 0.8	11000	41	15	**270**	18000	43	3200	230	< 1.5	**450**	**2**	48	34	120
		20902	13000	< 0.8	**18**	73	< 0.5	< 0.8	13000	41	17	**300**	19000	45	3200	230	< 1.5	**400**	**2**	49	34	130
	10 - 20 cm	20903	13000	< 0.8	15	73	< 0.5	< 0.8	11000	38	15	**230**	17000	36	2900	220	< 1.5	**340**	**2**	48	33	100
		20904	14000	< 0.8	16	85	< 0.5	< 0.8	13000	42	16	**270**	19000	40	3000	240	< 1.5	**400**	**2**	49	34	130

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037989 Edmund St. (front yard)	0 - 5 cm	21015	9000	< 0.8	7	42	< 0.5	< 0.8	4400	27	9	**160**	13000	48	2500	160	< 1.5	**170**	**2**	31	28	48
		21016	9200	< 0.8	5	37	< 0.5	< 0.8	4000	25	7	**93**	12000	22	2000	160	< 1.5	**110**	1	38	27	35
	5 - 10 cm	21017	11000	< 0.8	14	56	< 0.5	< 0.8	4100	37	14	**290**	19000	78	2800	180	< 1.5	**290**	**2**	34	39	61
		21018	12000	< 0.8	14	65	< 0.5	< 0.8	5400	40	15	**310**	20000	95	3100	200	< 1.5	**310**	**3**	40	40	68
	10 - 20 cm	21019	13000	< 0.8	17	74	< 0.5	< 0.8	3200	39	15	**270**	21000	82	3000	220	< 1.5	**300**	**2**	36	36	58
		21020	12000	< 0.8	17	75	< 0.5	< 0.8	3400	40	15	**250**	20000	76	3000	230	< 1.5	**320**	**2**	36	36	57
5037893 Ethelbert St. (back yard)	0 - 5 cm	17508	12000	< 0.8	14	53	< 0.5	**1.6**	6500	50	**26**	**550**	20000	59	3000	200	< 1.5	**590**	**3**	44	32	77
		17509	10000	< 0.8	16	46	< 0.5	**1.3**	5300	49	**27**	**560**	20000	58	2700	170	< 1.5	**680**	**3**	36	30	72
	5 - 10 cm	17510	6900	< 0.8	13	35	< 0.5	< 0.8	3200	32	15	**390**	13000	38	2100	130	< 1.5	**370**	**2**	22	26	50
		17511	6600	< 0.8	9	32	< 0.5	< 0.8	3000	29	10	**250**	12000	19	2100	120	< 1.5	**250**	1	24	26	41
	10 - 20 cm	17512	8000	< 0.8	< 5	34	< 0.5	< 0.8	3300	27	7	70	12000	8	2500	150	< 1.5	**100**	< 1	33	27	23
		17513	7300	< 0.8	< 5	32	< 0.5	< 0.8	2900	25	6	45	12000	5	2500	150	< 1.5	**78**	< 1	31	25	19
5028002 Granite St. (back yard)	0 - 5 cm	21120	12000	< 0.8	**22**	99	< 0.5	**2.6**	7900	54	**41**	**820**	27000	100	3100	210	< 1.5	**1000**	**5**	47	32	130
		21121	12000	< 0.8	**20**	100	< 0.5	**3.1**	8300	50	**48**	**920**	28000	120	3300	220	< 1.5	**1200**	**6**	47	32	140
	5 - 10 cm	21122	11000	< 0.8	**18**	59	< 0.5	0.9	4600	38	11	**250**	18000	32	2400	170	1.6	**320**	**2**	34	30	62
		21123	11000	< 0.8	**22**	73	< 0.5	**1.4**	5700	52	17	**420**	20000	49	2600	180	< 1.5	**470**	**3**	40	31	82
	10 - 20 cm	21124	11000	< 0.8	14	63	< 0.5	< 0.8	3500	28	7	**150**	15000	31	2100	160	< 1.5	**160**	< 1	35	28	53
		21125	13000	< 0.8	13	71	< 0.5	< 0.8	4700	34	8	**150**	18000	27	2500	180	< 1.5	**190**	< 1	45	34	55
5037993 Huron St. (back yard)	0 - 5 cm	21039	13000	< 0.8	9	66	< 0.5	< 0.8	6700	38	16	**360**	19000	28	3800	200	< 1.5	**320**	**2**	42	34	41
		21040	14000	< 0.8	12	83	< 0.5	**1.2**	8600	43	**25**	**490**	21000	52	4400	230	< 1.5	**520**	**3**	46	34	57
	5 - 10 cm	21041	14000	< 0.8	10	70	< 0.5	< 0.8	3600	40	11	**150**	20000	17	3800	230	< 1.5	**180**	1	32	35	31
		21042	14000	< 0.8	11	77	< 0.5	< 0.8	4300	37	10	**180**	19000	27	3300	220	< 1.5	**180**	1	39	35	40
	10 - 20 cm	21043	18000	< 0.8	9	120	< 0.5	< 0.8	5600	55	14	**140**	26000	23	6600	340	< 1.5	**170**	< 1	46	45	39
		21044	20000	< 0.8	7	130	< 0.5	< 0.8	5500	55	10	**110**	24000	25	5800	310	< 1.5	**130**	< 1	54	46	45
5037997 Hyland Dr. (front yard)	0 - 5 cm	21096	6600	< 0.8	< 5	27	< 0.5	< 0.8	3100	23	9	**140**	12000	31	2500	140	< 1.5	**140**	1	24	24	36
		21097	7200	< 0.8	< 5	25	< 0.5	< 0.8	3100	26	9	**150**	13000	36	2400	140	< 1.5	**140**	1	26	26	34
	5 - 10 cm	21098	6400	< 0.8	6	21	< 0.5	< 0.8	2600	23	8	**110**	12000	17	2100	130	< 1.5	**140**	< 1	22	24	24
		21099	5900	< 0.8	5	18	< 0.5	< 0.8	2300	21	8	84	12000	16	2100	130	< 1.5	**120**	< 1	22	24	20
	10 - 20 cm	21100	7200	< 0.8	8	28	< 0.5	< 0.8	2600	24	9	**120**	13000	18	2200	200	< 1.5	**170**	1	23	27	28
		21101	7800	< 0.8	8	32	< 0.5	< 0.8	2800	26	10	**130**	13000	21	2300	210	< 1.5	**170**	1	25	26	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037957 John St. (back yard)	0 - 5 cm	20815	11000	**2.0**	14	120	< 0.5	**1.6**	12000	34	**34**	**830**	18000	**160**	4000	240	< 1.5	**840**	**2**	51	28	**200**
		20816	11000	**1.6**	15	120	< 0.5	**1.7**	12000	33	**33**	**870**	19000	**160**	4000	240	< 1.5	**820**	**3**	49	27	**200**
	5 - 10 cm	20817	12000	**1.1**	17	150	< 0.5	**1.1**	9100	30	**36**	**830**	20000	**150**	3500	240	< 1.5	**970**	**2**	55	29	**190**
		20818	12000	0.9	**19**	150	< 0.5	**1.1**	9300	31	**30**	**790**	21000	**150**	3500	230	< 1.5	**860**	**2**	54	28	**190**
	10 - 20 cm	20819	11000	< 0.8	12	190	< 0.5	< 0.8	5500	24	**20**	**500**	16000	**140**	2000	240	< 1.5	**518**	1	57	24	160
		20820	11000	1.0	13	**240**	< 0.5	1.0	5500	24	**28**	**530**	16000	**180**	1900	260	< 1.5	**820**	**2**	66	25	**200**
5037992 Kingsmount Blvd. (back yard)	0 - 5 cm	21033	11000	< 0.8	14	89	< 0.5	**3.3**	9200	**93**	**30**	**680**	22000	99	2900	180	< 1.5	**780**	**4**	41	28	100
		21034	10000	< 0.8	13	85	< 0.5	**2.9**	9100	**110**	**26**	**640**	21000	97	3100	170	< 1.5	**640**	**4**	35	28	91
	5 - 10 cm	21035	9100	< 0.8	13	64	< 0.5	< 0.8	4000	38	10	**200**	15000	31	2300	140	< 1.5	**360**	1	29	26	52
		21036	11000	< 0.8	15	60	< 0.5	**1.5**	6900	44	19	**400**	18000	45	2600	170	< 1.5	**540**	**2**	36	28	73
	10 - 20 cm	21037	8000	< 0.8	7	42	< 0.5	< 0.8	3300	30	7	**91**	13000	17	2300	150	< 1.5	**130**	< 1	28	26	31
		21038	9700	< 0.8	8	51	< 0.5	< 0.8	3900	36	8	**110**	15000	16	2700	170	< 1.5	**150**	< 1	31	28	40
5037985 Lakeview Dr. (front yard)	0 - 5 cm	20991	12000	< 0.8	< 5	55	< 0.5	< 0.8	5300	38	8	67	16000	14	3700	220	< 1.5	**87**	< 1	42	35	31
		20992	13000	< 0.8	5	71	< 0.5	< 0.8	6000	40	9	84	17000	17	3700	230	< 1.5	**120**	1	44	36	36
	5 - 10 cm	20993	9400	< 0.8	< 5	39	< 0.5	< 0.8	3700	31	8	79	15000	14	3100	190	< 1.5	**96**	< 1	33	30	28
		20994	9800	< 0.8	5	39	< 0.5	< 0.8	4100	32	8	80	16000	15	3400	200	< 1.5	**100**	< 1	34	31	30
	10 - 20 cm	20995	9000	< 0.8	5	40	< 0.5	< 0.8	3500	27	8	**90**	15000	21	2700	190	< 1.5	**120**	< 1	32	28	30
		20996	8900	< 0.8	7	41	< 0.5	< 0.8	3800	29	9	**110**	15000	22	2700	190	< 1.5	**140**	< 1	33	28	32
5037953 Leslie St. (front yard)	0 - 5 cm	20791	12000	< 0.8	12	100	< 0.5	**1.2**	6100	62	18	**270**	20000	100	3800	250	< 1.5	**340**	< 1	45	34	110
		20792	12000	< 0.8	12	99	< 0.5	**1.1**	6100	62	20	**300**	20000	100	3900	260	< 1.5	**390**	**3**	43	33	94
	5 - 10 cm	20793	12000	**1.3**	14	110	< 0.5	< 0.8	4500	58	18	**280**	21000	**130**	3700	240	< 1.5	**330**	**3**	39	34	84
		20794	12000	1.0	14	110	< 0.5	0.9	4600	57	20	**280**	21000	**150**	3600	240	< 1.5	**310**	**2**	41	35	76
	10 - 20 cm	20795	13000	< 0.8	9	98	< 0.5	< 0.8	4000	42	10	**140**	19000	75	3800	270	< 1.5	**160**	1	41	36	68
		20796	13000	**1.2**	11	120	< 0.5	< 0.8	4100	43	13	**190**	20000	120	3700	290	< 1.5	**190**	**2**	42	35	110
5028003 McKim St. (back yard)	0 - 5 cm	21126	12000	1.0	11	110	< 0.5	**1.3**	11000	46	17	**350**	18000	**190**	3200	280	< 1.5	**320**	**2**	54	31	160
		21127	12000	1.0	11	110	< 0.5	**1.4**	10000	49	18	**340**	18000	**220**	3100	300	< 1.5	**340**	**5**	55	31	**180**
	5 - 10 cm	21128	13000	**1.2**	9	140	< 0.5	**1.3**	11000	51	11	**210**	16000	**310**	3000	320	< 1.5	**180**	1	60	32	**210**
		21129	13000	< 0.8	7	100	< 0.5	< 0.8	8700	42	8	**150**	16000	**140**	2900	270	< 1.5	**110**	< 1	55	33	130
	10 - 20 cm	21130	12000	**2.0**	10	**230**	< 0.5	**1.3**	13000	50	14	**200**	16000	**470**	3500	370	< 1.5	**190**	< 1	66	29	**340**
		21131	10000	1.0	8	130	< 0.5	< 0.8	7900	38	12	**130**	15000	**230**	2800	290	< 1.5	**150**	1	48	29	160

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028004 McKim St. (back yard)	0 - 5 cm	21132	13000	**1.2**	**20**	130	< 0.5	**1.9**	5400	44	**46**	**730**	28000	**200**	3600	250	< 1.5	**1050**	**3**	53	36	150
		21133	12000	< 0.8	**19**	110	< 0.5	**1.7**	5800	42	**40**	**660**	25000	**130**	3800	230	< 1.5	**910**	**2**	49	34	140
	5 - 10 cm	21134	14000	**1.3**	12	160	< 0.5	0.9	5500	40	17	**330**	20000	**140**	2900	280	< 1.5	**430**	1	71	35	**190**
		21135	14000	**1.2**	14	130	< 0.5	1.0	5000	39	18	**330**	21000	**130**	3000	250	< 1.5	**480**	**2**	62	36	160
	10 - 20 cm	21136	11000	1.0	8	120	< 0.5	< 0.8	3500	29	9	**190**	16000	86	2300	220	< 1.5	**210**	< 1	52	30	140
		21137	12000	1.0	8	120	< 0.5	< 0.8	3700	32	9	**190**	16000	91	2500	210	< 1.5	**250**	< 1	53	31	130
5028005 McKim St. (back yard)	0 - 5 cm	21138	9700	< 0.8	< 5	49	< 0.5	< 0.8	5700	30	9	**150**	13000	18	2700	250	< 1.5	**170**	1	39	28	45
		21139	9400	< 0.8	6	47	< 0.5	< 0.8	5400	28	9	**160**	14000	19	2700	250	**3.2**	**170**	1	38	28	44
	5 - 10 cm	21140	10000	< 0.8	< 5	49	< 0.5	< 0.8	6800	27	6	**87**	13000	30	2600	250	< 1.5	**96**	< 1	44	28	84
		21141	9800	< 0.8	< 5	55	< 0.5	< 0.8	8400	27	7	**92**	13000	41	2600	290	< 1.5	**110**	< 1	50	29	110
	10 - 20 cm	21142	8300	< 0.8	< 5	39	< 0.5	< 0.8	4600	24	6	81	11000	16	2500	180	< 1.5	**99**	< 1	31	24	41
		21143	8500	< 0.8	< 5	41	< 0.5	< 0.8	4300	26	6	84	12000	12	2600	190	< 1.5	**110**	< 1	32	26	35
5037986 McNaughton St. (front yard)	0 - 5 cm	20997	11000	< 0.8	6	39	< 0.5	< 0.8	4600	28	6	64	13000	15	2300	170	< 1.5	**84**	< 1	37	29	32
		20998	10000	< 0.8	6	36	< 0.5	< 0.8	4300	27	6	58	12000	14	2200	160	< 1.5	**83**	< 1	35	28	30
	5 - 10 cm	20999	10000	< 0.8	6	37	< 0.5	< 0.8	3600	27	7	**86**	13000	21	2200	170	< 1.5	**100**	< 1	34	27	35
		21000	10000	< 0.8	7	36	< 0.5	< 0.8	3500	27	6	82	14000	19	2100	150	< 1.5	**97**	< 1	32	28	34
	10 - 20 cm	21001	8200	< 0.8	7	49	< 0.5	< 0.8	3700	26	11	**140**	14000	37	2500	170	< 1.5	**220**	< 1	32	27	56
		21002	8200	< 0.8	7	49	< 0.5	< 0.8	3700	27	10	**140**	13000	41	2500	190	< 1.5	**200**	< 1	29	27	60
5037987 McNaughton St. (back yard)	0 - 5 cm	21003	9300	< 0.8	6	51	< 0.5	< 0.8	5500	34	11	**150**	14000	26	2700	200	< 1.5	**190**	< 1	35	28	41
		21004	9100	< 0.8	5	51	< 0.5	< 0.8	5500	35	10	**130**	13000	27	2800	200	< 1.5	**150**	< 1	36	27	43
	5 - 10 cm	21005	11000	< 0.8	6	61	< 0.5	< 0.8	4700	32	9	**120**	14000	21	2600	180	< 1.5	**170**	< 1	38	29	31
		21006	9000	< 0.8	6	49	< 0.5	< 0.8	4500	31	10	**150**	14000	22	2600	180	< 1.5	**180**	< 1	35	28	32
	10 - 20 cm	21007	8600	< 0.8	< 5	42	< 0.5	< 0.8	3600	25	5	36	11000	6	2400	160	< 1.5	**55**	< 1	34	26	17
		21008	9900	< 0.8	< 5	52	< 0.5	< 0.8	4300	29	7	56	12000	10	2600	170	< 1.5	**91**	< 1	38	28	24
5037891 McNeill Blvd. (back yard)	0 - 5 cm	17496	8300	< 0.8	10	44	< 0.5	0.9	6700	29	19	**450**	17000	44	3100	160	< 1.5	**420**	**2**	22	24	47
		17497	6400	< 0.8	6	35	< 0.5	< 0.8	4000	25	12	**260**	11000	23	2600	130	< 1.5	**240**	**2**	17	23	33
	5 - 10 cm	17498	7500	< 0.8	7	45	< 0.5	< 0.8	3500	28	10	**170**	14000	13	3200	170	< 1.5	**190**	< 1	27	27	23
		17499	7500	< 0.8	7	41	< 0.5	< 0.8	3400	28	10	**190**	14000	16	3100	160	< 1.5	**200**	< 1	24	26	29
	10 - 20 cm	17500	6400	< 0.8	< 5	39	< 0.5	< 0.8	3000	26	6	67	12000	7	2800	160	1.7	**110**	< 1	24	25	16
		17501	6900	< 0.8	5	42	< 0.5	< 0.8	3600	26	8	**100**	13000	10	3000	170	< 1.5	**130**	< 1	27	25	21

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037892 McNeill Blvd. (back yard)	0 - 5 cm	17502	12000	< 0.8	6	85	< 0.5	< 0.8	5700	49	14	**210**	18000	21	4400	280	< 1.5	**180**	**2**	41	34	39
		17503	13000	< 0.8	5	88	< 0.5	< 0.8	6300	50	12	**200**	18000	18	4500	290	< 1.5	**160**	1	47	36	40
	5 - 10 cm	17504	11000	< 0.8	< 5	65	< 0.5	< 0.8	4600	37	8	**96**	15000	10	3600	230	< 1.5	**98**	< 1	38	32	26
		17505	9800	< 0.8	< 5	57	< 0.5	< 0.8	4400	34	7	85	14000	9	3100	200	< 1.5	**85**	< 1	39	29	22
	10 - 20 cm	17506	12000	< 0.8	< 5	86	< 0.5	< 0.8	5200	43	8	58	19000	8	4900	270	< 1.5	**67**	< 1	39	37	26
		17507	21000	< 0.8	< 5	140	< 0.5	< 0.8	6500	61	10	62	24000	9	6800	360	< 1.5	**76**	< 1	54	49	34
5037963 Melvin Ave. (front yard)	0 - 5 cm	20851	7300	< 0.8	11	49	< 0.5	< 0.8	3600	28	15	**210**	15000	85	2500	160	< 1.5	**290**	**2**	26	26	90
		20852	5900	< 0.8	11	47	< 0.5	< 0.8	3400	24	13	**230**	12000	75	2800	140	< 1.5	**260**	**2**	18	20	67
	5 - 10 cm	20853	6500	< 0.8	15	56	< 0.5	< 0.8	2300	28	14	**260**	16000	110	2200	150	< 1.5	**260**	**2**	20	26	70
		20854	6800	< 0.8	14	61	< 0.5	< 0.8	2500	27	15	**230**	16000	110	2300	170	1.6	**280**	**2**	26	30	75
	10 - 20 cm	20855	6300	< 0.8	**18**	59	< 0.5	< 0.8	2100	24	14	**240**	16000	100	2100	150	< 1.5	**280**	**2**	21	26	71
		20856	6900	< 0.8	15	71	< 0.5	< 0.8	2500	26	14	**230**	16000	120	2400	160	< 1.5	**270**	**2**	25	27	70
5028006 Moland St. (back yard)	0 - 5 cm	21144	8600	< 0.8	9	28	< 0.5	< 0.8	3200	23	15	**310**	15000	19	2000	120	< 1.5	**300**	**2**	22	24	43
		21145	8600	< 0.8	8	34	< 0.5	< 0.8	3400	25	13	**290**	14000	21	2100	140	< 1.5	**340**	**2**	28	26	50
	5 - 10 cm	21146	9300	< 0.8	9	28	< 0.5	< 0.8	2500	23	7	**170**	13000	13	1700	110	< 1.5	**180**	1	27	27	24
		21147	11000	< 0.8	7	43	< 0.5	< 0.8	3600	27	8	**160**	14000	14	1900	150	< 1.5	**170**	< 1	36	30	29
	10 - 20 cm	21148	13000	< 0.8	9	56	< 0.5	< 0.8	3500	32	9	**180**	17000	14	2600	180	< 1.5	**210**	1	41	33	28
		21149	13000	< 0.8	8	56	< 0.5	< 0.8	3900	31	10	**160**	16000	13	2400	200	< 1.5	**200**	1	41	33	31
5037947 Morris St. (front yard)	0 - 5 cm	20755	9600	< 0.8	8	54	< 0.5	< 0.8	3700	30	8	**170**	14000	41	2000	170	< 1.5	**160**	**2**	29	28	47
		20756	11000	< 0.8	8	52	< 0.5	< 0.8	4700	32	9	**220**	15000	35	2100	190	< 1.5	**170**	**2**	43	32	52
	5 - 10 cm	20757	11000	< 0.8	8	55	< 0.5	< 0.8	9000	31	9	**140**	15000	42	2200	210	< 1.5	**180**	**2**	43	31	48
		20758	11000	< 0.8	13	67	< 0.5	1.0	14000	35	16	**290**	19000	100	2600	210	< 1.5	**350**	**3**	43	33	76
	10 - 20 cm	20759	14000	0.9	**20**	120	< 0.5	1.0	6500	42	**22**	**400**	24000	**130**	3300	260	< 1.5	**530**	**3**	47	39	97
		20760	13000	< 0.8	**18**	100	< 0.5	< 0.8	6000	38	19	**440**	25000	110	3200	250	< 1.5	**460**	**3**	42	36	100
5037948 Morris St. (front yard)	0 - 5 cm	20761	10000	< 0.8	8	82	< 0.5	< 0.8	12000	33	11	**180**	16000	**160**	4800	220	< 1.5	**190**	**2**	53	29	150
		20762	12000	< 0.8	7	100	< 0.5	< 0.8	12000	34	9	**140**	16000	71	5500	230	< 1.5	**150**	**2**	73	31	88
	5 - 10 cm	20763	13000	< 0.8	7	59	< 0.5	< 0.8	14000	38	9	**120**	17000	42	6600	250	< 1.5	**150**	**2**	51	34	54
		20764	11000	< 0.8	9	72	< 0.5	< 0.8	8600	32	10	**140**	16000	65	3700	230	< 1.5	**190**	**2**	43	31	82
	10 - 20 cm	20765	12000	< 0.8	11	79	< 0.5	< 0.8	10000	31	12	**190**	19000	98	3500	250	< 1.5	**270**	**2**	44	34	89
		20766	13000	**1.3**	11	80	< 0.5	< 0.8	7700	32	14	**170**	18000	88	3100	240	< 1.5	**290**	**2**	45	33	74

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037952 Mountain St. (front yard)	0 - 5 cm	20785	14000	< 0.8	9	96	< 0.5	< 0.8	5400	42	14	**180**	18000	60	3500	270	< 1.5	**210**	**2**	49	37	86
		20786	14000	< 0.8	9	100	< 0.5	**1.1**	6100	43	15	**200**	19000	82	3500	270	< 1.5	**250**	**2**	49	36	120
	5 - 10 cm	20787	12000	< 0.8	10	50	< 0.5	< 0.8	4400	31	11	**180**	16000	41	2400	180	< 1.5	**190**	**2**	44	33	70
		20788	12000	< 0.8	12	58	< 0.5	< 0.8	4700	34	12	**210**	17000	57	2500	190	< 1.5	**220**	**2**	45	34	82
	10 - 20 cm	20789	13000	< 0.8	11	72	< 0.5	< 0.8	4400	36	12	**160**	19000	72	2600	210	< 1.5	**210**	**2**	47	36	85
		20790	11000	< 0.8	10	45	< 0.5	< 0.8	3200	29	8	**120**	15000	41	2200	160	< 1.5	**150**	1	33	30	62
5037990 O'Connor St. (back yard)	0 - 5 cm	21021	13000	< 0.8	**22**	95	< 0.5	**1.6**	4900	66	**32**	**590**	23000	**134**	2900	210	< 1.5	**480**	**4**	39	32	100
		21022	13000	< 0.8	**18**	91	< 0.5	**1.4**	4800	71	**27**	**530**	22000	**132**	2800	210	< 1.5	**700**	**4**	41	31	92
	5 - 10 cm	21023	14000	< 0.8	15	92	< 0.5	**1.2**	4700	45	16	**270**	17000	77	2700	210	< 1.5	**430**	**2**	40	32	89
		21024	13000	< 0.8	17	99	< 0.5	**1.4**	4200	44	17	**320**	18000	84	2700	220	< 1.5	**480**	**2**	37	31	86
	10 - 20 cm	21025	10000	< 0.8	9	62	< 0.5	< 0.8	3100	30	8	**120**	14000	42	2200	180	< 1.5	**180**	1	31	27	48
		21026	13000	< 0.8	11	85	< 0.5	< 0.8	3700	41	12	**190**	17000	44	2800	190	< 1.5	**300**	**2**	37	30	59
5037961 Patterson St. (back yard)	0 - 5 cm	20839	11000	< 0.8	12	60	< 0.5	< 0.8	4200	33	16	**260**	18000	41	2900	190	< 1.5	**350**	**2**	37	30	59
		20840	12000	< 0.8	10	61	< 0.5	< 0.8	4300	35	16	**240**	18000	37	3000	190	< 1.5	**330**	**2**	38	30	53
	5 - 10 cm	20841	13000	< 0.8	13	82	< 0.5	< 0.8	4300	35	14	**240**	18000	41	2700	190	< 1.5	**320**	1	42	33	68
		20842	13000	< 0.8	11	72	< 0.5	< 0.8	5000	40	14	**230**	18000	31	3000	200	< 1.5	**300**	1	43	34	55
	10 - 20 cm	20843	12000	< 0.8	11	67	< 0.5	< 0.8	4200	32	10	**170**	16000	27	2500	180	1.8	**230**	1	40	31	53
		20844	12000	< 0.8	10	63	< 0.5	< 0.8	4100	34	10	**150**	16000	24	2600	180	< 1.5	**200**	1	40	32	46
5037996 Prete St. (front yard)	0 - 5 cm	21090	8200	< 0.8	8	49	< 0.5	1.0	7400	43	14	**240**	15000	38	2700	230	< 1.5	**270**	**2**	38	28	65
		21091	12000	< 0.8	6	72	< 0.5	1.0	8800	53	13	**260**	16000	37	3300	250	< 1.5	**270**	**2**	42	33	65
	5 - 10 cm	21092	7800	< 0.8	11	47	< 0.5	**1.4**	8400	44	15	**270**	15000	44	2800	250	< 1.5	**330**	**2**	35	29	71
		21093	8200	< 0.8	10	50	< 0.5	**1.3**	8000	50	15	**280**	16000	44	2900	250	< 1.5	**320**	**2**	34	30	70
	10 - 20 cm	21094	6400	< 0.8	9	34	< 0.5	0.9	7500	35	11	**180**	13000	29	3200	200	< 1.5	**230**	**2**	25	25	52
		21095	7300	< 0.8	8	37	< 0.5	< 0.8	10000	35	11	**170**	14000	26	4300	210	< 1.5	**230**	1	33	27	47
5037954 Queen St. (front yard)	0 - 5 cm	20797	11000	< 0.8	8	50	< 0.5	1.0	4600	37	15	**260**	17000	69	3000	180	< 1.5	**280**	**2**	42	34	79
		20798	10000	< 0.8	7	46	< 0.5	< 0.8	4300	33	12	**220**	17000	59	3100	170	< 1.5	**230**	**2**	39	32	69
	5 - 10 cm	20799	9100	< 0.8	< 5	30	< 0.5	< 0.8	2700	27	7	65	14000	15	2800	160	< 1.5	**76**	< 1	27	29	29
		20800	8900	< 0.8	6	31	< 0.5	< 0.8	3100	29	8	64	15000	17	3100	170	< 1.5	**84**	< 1	29	30	28
	10 - 20 cm	20801	7200	< 0.8	5	37	< 0.5	< 0.8	2500	24	6	62	11000	30	2400	140	< 1.5	**85**	< 1	24	24	34
		20802	7400	< 0.8	6	37	< 0.5	< 0.8	2600	24	7	65	12000	39	2500	140	< 1.5	**91**	< 1	27	25	33

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037988 Ramsey Rd. (back yard)	0 - 5 cm	21009	13000	< 0.8	10	87	< 0.5	0.9	7200	40	13	**230**	18000	48	3300	250	< 1.5	**280**	1	46	41	76
		21010	12000	< 0.8	10	81	< 0.5	1.0	6400	36	14	**220**	18000	49	2900	230	< 1.5	**280**	1	43	37	74
	5 - 10 cm	21011	10000	< 0.8	9	56	< 0.5	< 0.8	4600	31	12	**160**	17000	38	2500	200	< 1.5	**250**	1	36	35	58
		21012	10000	1.0	10	60	< 0.5	0.9	5300	34	12	**180**	17000	36	2600	220	< 1.5	**240**	**2**	37	39	61
	10 - 20 cm	21013	9500	< 0.8	7	48	< 0.5	< 0.8	2900	27	7	85	14000	17	2200	160	< 1.5	**100**	1	28	29	39
		21014	10000	1.0	8	51	< 0.5	< 0.8	3700	29	8	**110**	15000	22	2400	180	< 1.5	**140**	1	31	31	49
5037991 Riverside Dr. (front yard)	0 - 5 cm	21027	9600	< 0.8	6	46	< 0.5	< 0.8	5800	28	9	**140**	14000	27	2600	230	< 1.5	**180**	1	40	29	40
		21028	11000	< 0.8	6	52	< 0.5	< 0.8	6100	30	9	**120**	14000	28	2600	220	< 1.5	**170**	1	43	30	37
	5 - 10 cm	21029	11000	< 0.8	7	61	< 0.5	< 0.8	7100	32	9	**140**	15000	31	2700	240	< 1.5	**180**	1	44	31	40
		21030	11000	< 0.8	6	53	< 0.5	< 0.8	6100	29	7	**98**	14000	21	2600	220	< 1.5	**120**	< 1	42	31	33
	10 - 20 cm	21031	7600	< 0.8	8	43	< 0.5	< 0.8	4200	19	6	**110**	11000	22	1600	140	< 1.5	**150**	< 1	29	23	27
		21032	9100	< 0.8	8	47	< 0.5	< 0.8	4700	22	8	**150**	14000	37	1900	150	< 1.5	**210**	< 1	30	27	37
5037907 Sandra Blvd. (front yard)	0 - 5 cm	18894	6500	< 0.8	9	34	< 0.5	< 0.8	3700	26	**22**	**400**	16000	46	2600	150	< 1.5	**470**	**3**	23	25	45
		18895	6800	< 0.8	10	34	< 0.5	< 0.8	3800	26	19	**420**	16000	43	2500	150	< 1.5	**450**	**2**	25	25	41
	5 - 10 cm	18896	7600	< 0.8	10	27	< 0.5	< 0.8	3000	24	11	**200**	13000	17	2300	140	< 1.5	**240**	1	24	24	26
		18897	7100	< 0.8	7	23	< 0.5	< 0.8	2500	21	8	**150**	12000	11	2100	140	< 1.5	**160**	< 1	21	23	20
	10 - 20 cm	18898	5700	< 0.8	7	21	< 0.5	< 0.8	2000	18	8	**110**	11000	11	2200	120	< 1.5	**170**	< 1	16	20	19
		18899	6600	< 0.8	< 5	23	< 0.5	< 0.8	2000	20	6	83	11000	8	2100	130	< 1.5	**120**	< 1	16	22	19
5037968 Selkirk St. (front yard)	0 - 5 cm	20881	9200	< 0.8	< 5	31	< 0.5	< 0.8	4500	27	4	32	12000	7	2400	160	< 1.5	41	< 1	43	28	22
		20882	10000	< 0.8	< 5	37	< 0.5	< 0.8	4800	31	5	46	12000	9	2400	160	< 1.5	**61**	< 1	46	29	23
	5 - 10 cm	20883	9700	< 0.8	< 5	38	< 0.5	< 0.8	4500	28	4	17	13000	5	2500	170	< 1.5	23	< 1	44	29	16
		20884	9700	< 0.8	< 5	39	< 0.5	< 0.8	4500	29	4	17	13000	5	2500	180	< 1.5	24	< 1	45	30	17
	10 - 20 cm	20885	11000	< 0.8	< 5	50	< 0.5	< 0.8	4600	35	6	54	15000	8	2600	180	< 1.5	**74**	< 1	44	32	20
		20886	8400	< 0.8	6	33	< 0.5	< 0.8	3300	26	6	51	13000	8	2300	150	< 1.5	**61**	< 1	29	29	17
5037969 Snowdon Ave. (front yard)	0 - 5 cm	20887	9800	< 0.8	9	53	< 0.5	0.9	6700	32	14	**280**	15000	47	3300	240	< 1.5	**280**	**2**	39	30	55
		20888	9500	< 0.8	9	55	< 0.5	**1.1**	6900	32	17	**350**	16000	59	3400	220	< 1.5	**330**	**3**	37	30	56
	5 - 10 cm	20889	9600	< 0.8	10	47	< 0.5	< 0.8	5800	28	9	**180**	14000	19	2900	210	< 1.5	**180**	**2**	33	29	34
		20890	9600	< 0.8	11	50	< 0.5	< 0.8	6100	30	11	**210**	14000	23	3100	230	< 1.5	**220**	**2**	32	30	38
	10 - 20 cm	20891	9800	< 0.8	< 5	56	< 0.5	< 0.8	12000	29	7	53	14000	7	5600	210	< 1.5	**67**	< 1	46	31	21
		20892	7800	< 0.8	< 5	47	< 0.5	< 0.8	9500	27	6	57	13000	10	4900	200	< 1.5	**67**	< 1	37	28	24

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037902 Spruce St. (back yard)	0 - 5 cm	18864	9300	< 0.8	13	77	< 0.5	1.0	4300	32	21	**430**	18000	69	2800	170	< 1.5	**570**	**2**	33	29	100
		18865	12000	< 0.8	10	110	< 0.5	0.9	4700	40	19	**370**	18000	66	3100	190	< 1.5	**480**	**2**	40	33	96
	5 - 10 cm	18866	10000	< 0.8	13	71	< 0.5	< 0.8	3800	32	19	**360**	18000	76	2600	170	< 1.5	**580**	1	36	32	110
		18867	11000	< 0.8	14	82	< 0.5	< 0.8	3800	34	**22**	**420**	19000	78	2700	180	< 1.5	**640**	**2**	36	31	98
	10 - 20 cm	18868	10000	< 0.8	9	67	< 0.5	< 0.8	3600	30	11	**230**	15000	51	2400	170	< 1.5	**300**	1	34	30	70
		18869	10000	< 0.8	8	71	< 0.5	< 0.8	3500	30	10	**170**	15000	34	2600	180	< 1.5	**220**	< 1	34	30	58
5037958 St. Charles St. (front yard)	0 - 5 cm	20821	9000	< 0.8	< 5	44	< 0.5	< 0.8	5600	45	8	**88**	14000	26	3200	170	< 1.5	**110**	1	34	28	49
		20822	9100	< 0.8	< 5	45	< 0.5	0.9	5900	48	10	**110**	14000	32	3400	180	< 1.5	**140**	1	35	28	62
	5 - 10 cm	20823	9400	< 0.8	< 5	42	< 0.5	< 0.8	4600	42	8	70	14000	21	3000	170	1.6	**90**	< 1	37	30	37
		20824	9800	< 0.8	< 5	49	< 0.5	< 0.8	5200	50	8	84	14000	25	3000	180	< 1.5	**102**	< 1	40	30	57
	10 - 20 cm	20825	7800	< 0.8	< 5	33	< 0.5	< 0.8	4000	30	7	54	12000	14	2600	140	< 1.5	**73**	< 1	35	26	24
		20826	9200	< 0.8	< 5	50	< 0.5	< 0.8	4400	33	7	50	13000	15	2700	170	< 1.5	**68**	< 1	40	28	27
5037999 St. Clair St. (back yard)	0 - 5 cm	21108	11000	< 0.8	7	49	< 0.5	< 0.8	5300	29	8	**180**	14000	28	2400	170	< 1.5	**150**	**2**	39	31	46
		21109	11000	< 0.8	7	52	< 0.5	< 0.8	5600	31	9	**170**	15000	31	2500	180	< 1.5	**160**	**2**	41	32	44
	5 - 10 cm	21110	11000	< 0.8	7	45	< 0.5	< 0.8	4500	30	6	**98**	14000	19	2100	180	< 1.5	**91**	1	40	32	30
		21111	12000	< 0.8	7	47	< 0.5	< 0.8	4500	30	6	**92**	15000	19	2100	180	< 1.5	**91**	< 1	40	34	30
	10 - 20 cm	21112	11000	**1.3**	6	58	< 0.5	< 0.8	5200	33	7	**100**	15000	25	2400	200	< 1.5	**110**	1	40	34	42
		21113	9700	< 0.8	7	48	< 0.5	< 0.8	4600	28	7	**110**	15000	24	2300	200	< 1.5	**110**	1	34	32	41
5037950 St. Raphael St. (front yard)	0 - 5 cm	20773	6900	< 0.8	< 5	34	< 0.5	< 0.8	3000	25	5	63	11000	12	2600	160	< 1.5	**67**	1	17	23	30
		20774	9300	< 0.8	6	40	< 0.5	< 0.8	4600	28	6	68	13000	15	2700	200	< 1.5	**81**	1	35	27	33
	5 - 10 cm	20775	7300	< 0.8	< 5	30	< 0.5	< 0.8	3300	23	5	43	12000	9	2300	150	< 1.5	**56**	< 1	27	24	17
		20776	8600	< 0.8	5	32	< 0.5	< 0.8	3900	27	5	39	13000	9	2600	170	< 1.5	**57**	< 1	32	27	20
	10 - 20 cm	20777	5700	< 0.8	< 5	22	< 0.5	< 0.8	2600	21	5	18	10000	4	2100	130	< 1.5	30	< 1	21	22	10
		20778	6100	< 0.8	< 5	24	< 0.5	< 0.8	2700	21	5	17	11000	4	2300	140	< 1.5	32	< 1	24	23	11
5037904 Stanley St. (back yard)	0 - 5 cm	18876	6200	< 0.8	11	43	< 0.5	< 0.8	4000	27	18	**400**	16000	65	2900	140	< 1.5	**410**	**3**	20	24	48
		18877	6300	< 0.8	10	44	< 0.5	< 0.8	2900	27	19	**420**	16000	44	2700	150	< 1.5	**470**	**3**	21	24	48
	5 - 10 cm	18878	6500	< 0.8	7	41	< 0.5	< 0.8	3000	26	10	**160**	15000	16	2800	160	< 1.5	**200**	< 1	20	25	30
		18879	5100	< 0.8	5	34	< 0.5	< 0.8	1900	21	8	**120**	12000	15	2700	140	< 1.5	**140**	< 1	10	20	25
	10 - 20 cm	18880	4700	< 0.8	6	24	< 0.5	< 0.8	2000	18	6	72	10000	9	2200	110	< 1.5	**110**	< 1	13	19	17
		18881	5100	< 0.8	< 5	23	< 0.5	< 0.8	1900	18	5	50	9500	6	2100	110	< 1.5	**74**	< 1	16	19	15

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037899 Victoria St. (back yard)	0 - 5 cm	18846	11000	1.0	9	77	< 0.5	< 0.8	4000	30	13	**210**	16000	69	2300	190	< 1.5	**270**	1	35	29	97
		18847	9100	**1.3**	10	67	< 0.5	1.0	4000	30	15	**290**	16000	77	2300	170	< 1.5	**350**	**2**	34	27	110
	5 - 10 cm	18848	11000	**1.1**	12	81	< 0.5	< 0.8	4000	32	12	**200**	16000	65	2400	190	< 1.5	**230**	1	36	30	110
		18849	8300	**1.4**	11	62	< 0.5	< 0.8	3000	25	10	**190**	15000	58	1900	170	< 1.5	**220**	1	27	26	78
	10 - 20 cm	18850	7600	**1.1**	9	61	< 0.5	< 0.8	3100	25	11	**150**	14000	57	2000	160	< 1.5	**180**	1	26	25	83
		18851	7400	0.9	10	65	< 0.5	< 0.8	2500	24	10	**170**	13000	62	1900	160	< 1.5	**200**	1	21	24	78
5037998 Wembley Dr. (back yard)	0 - 5 cm	21102	12000	0.9	10	85	< 0.5	**1.8**	6600	**81**	16	**290**	19000	81	3400	240	< 1.5	**290**	**3**	46	34	160
		21103	12000	**1.1**	11	86	< 0.5	**1.7**	6500	**82**	15	**280**	20000	79	3300	230	< 1.5	**280**	**3**	48	36	110
	5 - 10 cm	21104	13000	< 0.8	5	84	< 0.5	< 0.8	6000	59	7	**230**	21000	23	2900	230	< 1.5	**79**	< 1	50	39	84
		21105	11000	1.0	11	85	< 0.5	**1.3**	5500	51	13	**220**	20000	71	2800	200	< 1.5	**250**	**2**	44	34	98
	10 - 20 cm	21106	11000	1.0	12	75	< 0.5	1.0	4400	41	11	**200**	19000	70	2600	190	< 1.5	**240**	**2**	38	34	92
		21107	12000	< 0.8	11	83	< 0.5	< 0.8	5300	40	11	**190**	21000	54	2700	190	< 1.5	**200**	**2**	45	35	89
5037895 White Ave. (back yard)	0 - 5 cm	18822	12000	< 0.8	17	110	< 0.5	**1.3**	7900	41	20	**420**	20000	71	3700	310	< 1.5	**450**	**3**	41	36	110
		18823	14000	< 0.8	**20**	110	< 0.5	**1.4**	7800	44	20	**450**	21000	84	4000	330	< 1.5	**460**	**3**	45	38	130
	5 - 10 cm	18824	12000	< 0.8	**19**	110	< 0.5	< 0.8	7800	40	14	**280**	19000	76	3900	320	< 1.5	**310**	**2**	41	35	110
		18825	15000	< 0.8	**19**	130	< 0.5	0.9	7900	46	15	**320**	21000	83	4200	380	< 1.5	**330**	**2**	49	40	130
	10 - 20 cm	18826	17000	< 0.8	**18**	140	< 0.5	< 0.8	7500	48	14	**280**	21000	**220**	4200	320	< 1.5	**300**	**2**	51	42	100
		18827	16000	< 0.8	15	120	< 0.5	< 0.8	6700	44	13	**220**	20000	55	3900	310	< 1.5	**260**	1	50	40	83
5037896 White Ave. (back yard)	0 - 5 cm	18828	16000	< 0.8	**30**	130	< 0.5	**4.1**	8900	55	**75**	**1600**	36000	100	4200	270	< 1.5	**2000**	**8**	47	40	110
		18829	17000	< 0.8	**30**	140	< 0.5	**3.3**	9100	56	**66**	**1400**	35000	88	4400	300	< 1.5	**1800**	**7**	49	42	110
	5 - 10 cm	18830	20000	< 0.8	13	130	< 0.5	< 0.8	8000	54	16	**240**	23000	16	6300	350	< 1.5	**350**	**2**	53	46	50
		18831	16000	< 0.8	11	100	< 0.5	< 0.8	7500	45	16	**230**	22000	15	5800	310	< 1.5	**350**	1	46	40	45
	10 - 20 cm	18832	8500	< 0.8	< 5	52	< 0.5	< 0.8	11000	29	7	51	14000	6	5800	210	< 1.5	**76**	< 1	36	28	21
		18833	16000	< 0.8	6	110	< 0.5	< 0.8	8400	48	12	**86**	22000	10	7200	350	< 1.5	**140**	< 1	46	41	39
5037897 White Ave. (front yard)	0 - 5 cm	18834	9600	< 0.8	**19**	63	< 0.5	**2.0**	10000	47	**41**	**780**	24000	**140**	3400	190	< 1.5	**1000**	**3**	37	29	86
		18835	9100	< 0.8	**20**	65	< 0.5	**2.8**	11000	50	**48**	**900**	26000	110	3300	180	1.8	**1200**	**4**	38	29	90
	5 - 10 cm	18836	10000	< 0.8	13	57	< 0.5	**1.1**	8200	34	14	**280**	17000	23	3100	190	< 1.5	**370**	**2**	37	30	42
		18837	12000	< 0.8	13	70	< 0.5	< 0.8	8800	37	14	**240**	19000	20	3700	220	< 1.5	**360**	1	41	33	41
	10 - 20 cm	18838	19000	< 0.8	6	130	< 0.5	< 0.8	6800	60	13	**89**	26000	12	7300	360	< 1.5	**120**	< 1	47	47	42
		18839	21000	< 0.8	6	140	< 0.5	< 0.8	9200	62	13	85	28000	12	8300	390	< 1.5	**110**	< 1	52	50	41

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037900 Whittaker St. (front yard)	0 - 5 cm	18852	9200	< 0.8	6	54	< 0.5	< 0.8	5200	31	11	**230**	14000	35	2700	160	< 1.5	**210**	**2**	35	25	56
		18853	8000	< 0.8	6	34	< 0.5	< 0.8	5100	34	12	**230**	14000	35	2900	140	< 1.5	**220**	**2**	26	23	57
	5 - 10 cm	18854	10000	< 0.8	< 5	22	< 0.5	< 0.8	3200	25	4	45	13000	10	1800	150	< 1.5	**49**	< 1	33	28	18
		18855	11000	< 0.8	< 5	31	< 0.5	< 0.8	3700	27	6	58	14000	15	2000	160	< 1.5	**66**	< 1	38	29	23
	10 - 20 cm	18856	11000	< 0.8	< 5	36	< 0.5	< 0.8	3400	26	6	51	13000	17	1900	180	< 1.5	**77**	< 1	36	28	24
		18857	11000	< 0.8	< 5	37	< 0.5	< 0.8	3300	26	5	54	13000	14	1900	170	< 1.5	**58**	< 1	35	27	25
5037901 Whittaker St. (front yard)	0 - 5 cm	18858	12000	< 0.8	8	80	< 0.5	1.0	7400	43	16	**320**	18000	81	4300	230	< 1.5	**340**	**3**	44	34	81
		18859	12000	< 0.8	10	77	< 0.5	1.0	8100	42	15	**330**	18000	78	4200	220	< 1.5	**340**	**2**	46	34	100
	5 - 10 cm	18860	12000	< 0.8	8	81	< 0.5	< 0.8	5800	38	14	**190**	19000	70	3500	230	< 1.5	**260**	1	39	34	76
		18861	13000	< 0.8	7	94	< 0.5	< 0.8	5600	42	13	**190**	19000	52	3900	270	< 1.5	**220**	1	41	36	65
	10 - 20 cm	18862	6400	< 0.8	< 5	54	< 0.5	< 0.8	2400	29	7	58	13000	21	2900	170	< 1.5	**65**	< 1	20	27	36
		18863	12000	< 0.8	< 5	110	< 0.5	< 0.8	3700	51	12	**130**	20000	54	5200	300	< 1.5	**130**	< 1	30	37	55
Community of Gatchell																						
5037758 Bulmer Ave. (front yard)	0-5 cm	16666	7300	< 0.8	6	59	< 0.5	0.9	3700	26	15	**370**	14000	60	3100	140	< 1.5	**290**	**2**	21	22	78
		16667	8100	1	6	61	< 0.5	1	4000	30	19	**440**	15000	69	3000	150	< 1.5	**380**	**3**	25	24	70
	5-10 cm	16668	6800	< 0.8	5	46	< 0.5	< 0.8	2200	21	9	**170**	12000	40	2100	140	< 1.5	**160**	< 1	18	21	53
		16669	7900	< 0.8	5	57	< 0.5	< 0.8	3300	23	11	**220**	13000	41	2700	160	< 1.5	**260**	1	24	24	61
	0-20 cm	16670	6000	< 0.8	5	37	< 0.5	< 0.8	2200	18	7	**100**	11000	34	2400	130	< 1.5	**110**	< 1	18	22	40
		16671	9000	< 0.8	< 5	57	< 0.5	< 0.8	3200	26	8	**89**	13000	28	2700	170	< 1.5	**120**	< 1	28	27	47
5037759 Bulmer Ave. (back yard)	0-5 cm	16672	9700	< 0.8	6	57	< 0.5	0.9	5000	36	13	**290**	15000	39	3500	170	< 1.5	**230**	**2**	34	27	68
		16673	8500	< 0.8	15	45	< 0.5	1.1	3700	31	20	**300**	14000	51	2900	150	< 1.5	**350**	2	19	24	86
	5-10 cm	16674	11000	< 0.8	< 5	56	< 0.5	< 0.8	3600	24	8	**110**	14000	27	2700	160	< 1.5	**110**	< 1	33	28	42
		16675	7200	< 0.8	< 5	37	< 0.5	< 0.8	2800	21	7	**120**	12000	25	2500	140	< 1.5	**100**	< 1	24	23	41
	10-20 cm	16676	7500	< 0.8	6	42	< 0.5	< 0.8	2800	20	8	**130**	12000	28	2300	140	< 1.5	**150**	< 1	26	24	51
		16677	7100	< 0.8	6	42	< 0.5	< 0.8	2600	20	8	**120**	12000	26	2500	140	< 1.5	**130**	**2**	22	23	47

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037762 Clemow Ave. (front yard)	0-5 cm	16690	8800	< 0.8	9	51	< 0.5	< 0.8	3500	27	14	**280**	14000	80	2600	160	< 1.5	**290**	<1	34	27	80
		16691	9900	< 0.8	10	56	< 0.5	< 0.8	4200	30	16	**340**	17000	77	2900	190	< 1.5	**340**	<1	38	28	83
	5-10 cm	16692	11000	< 0.8	7	62	< 0.5	< 0.8	3000	27	9	**130**	13000	42	2400	170	< 1.5	**230**	<1	34	29	59
		16693	9200	**1.2**	8	66	< 0.5	< 0.8	2700	23	9	**190**	13000	49	2300	170	< 1.5	**190**	<1	29	26	76
	10-20 cm	16694	6800	1	6	42	< 0.5	< 0.8	2000	20	8	**160**	11000	47	2100	140	< 1.5	**150**	<1	19	23	59
		16695	7000	< 0.8	<5	47	< 0.5	< 0.8	2100	21	8	**100**	11000	36	2400	140	< 1.5	**180**	<1	20	23	57
5037763 Clemow Ave. (back yard)	0-5 cm	16696	8300	< 0.8	8	62	< 0.5	< 0.8	3300	23	9	**190**	13000	69	2300	160	< 1.5	**210**	<1	25	25	120
		16697	8000	< 0.8	8	60	< 0.5	< 0.8	3600	23	8	**170**	13000	53	2200	160	< 1.5	**180**	1	26	23	97
	5-10 cm	16698	7000	< 0.8	7	60	< 0.5	< 0.8	2700	19	9	**180**	12000	78	2000	130	< 1.5	**220**	<1	20	22	120
		16699	9300	< 0.8	11	68	< 0.5	< 0.8	3400	27	8	**200**	14000	47	2100	150	< 1.5	**200**	1	31	29	120
	10-20 cm	16700	8900	< 0.8	7	69	< 0.5	< 0.8	3200	26	7	**150**	13000	55	2100	150	< 1.5	**190**	<1	31	28	110
		16701	9200	< 0.8	8	64	< 0.5	< 0.8	3000	26	7	**150**	14000	56	2100	150	< 1.5	**180**	1	31	29	120
5037770 Dean Ave. (front yard)	0-5 cm	16738	8200	< 0.8	7	57	< 0.5	< 0.8	3500	35	14	**350**	15000	36	3000	180	< 1.5	**300**	**2**	23	27	64
		16739	8000	< 0.8	7	56	< 0.5	< 0.8	3200	35	14	**360**	15000	40	2900	180	< 1.5	**300**	**2**	21	26	64
	5-10 cm	16740	7100	< 0.8	9	56	< 0.5	< 0.8	3300	34	14	**350**	14000	39	2800	190	< 1.5	**310**	1	22	25	68
		16741	8200	< 0.8	9	58	< 0.5	< 0.8	3800	37	15	**410**	16000	43	3000	190	< 1.5	**320**	**2**	25	26	71
	10-20 cm	16742	7600	< 0.8	9	61	< 0.5	< 0.8	3300	31	13	**320**	15000	37	2900	180	< 1.5	**290**	1	23	26	60
		16743	7100	< 0.8	9	50	< 0.5	< 0.8	2900	30	12	**310**	14000	38	2800	170	< 1.5	**260**	1	20	25	56
5037771 Dean Ave. (back yard)	0-5 cm	16744	7300	< 0.8	8	57	< 0.5	< 0.8	4400	31	12	**350**	13000	31	2800	190	< 1.5	**270**	**3**	24	22	79
		16745	7600	< 0.8	8	62	< 0.5	< 0.8	5100	31	12	**350**	14000	35	2800	200	< 1.5	**280**	**2**	26	23	82
	5-10 cm	16746	7700	< 0.8	9	64	< 0.5	< 0.8	5100	33	12	**380**	14000	34	3100	210	< 1.5	**300**	**2**	28	24	84
		16747	8500	< 0.8	10	67	< 0.5	< 0.8	5600	34	13	**380**	15000	33	3000	230	< 1.5	**320**	**2**	31	26	85
	10-20 cm	16748	8300	< 0.8	9	56	< 0.5	< 0.8	4400	30	11	**310**	14000	26	2700	200	< 1.5	**240**	1	30	25	67
		16749	9300	< 0.8	9	56	< 0.5	< 0.8	4600	28	10	**220**	13000	21	2600	200	< 1.5	**240**	<1	35	27	57

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037756 Demorest St. (front yard)	0-5 cm	16654	12000	< 0.8	5	54	< 0.5	1	6400	38	12	370	17000	36	2700	250	< 1.5	230	3	47	33	67
		16655	12000	< 0.8	6	47	< 0.5	1.3	5400	36	15	440	11000	43	2400	230	< 1.5	290	3	37	31	77
	5-10 cm	16656	9500	< 0.8	<5	36	< 0.5	< 0.8	2600	22	7	80	10000	20	2100	170	< 1.5	98	<1	22	26	29
		16657	9600	< 0.8	<5	31	< 0.5	< 0.8	2500	23	6	70	9400	16	2100	150	< 1.5	80	<1	18	25	28
	10-20 cm	16658	6800	< 0.8	5	40	< 0.5	< 0.8	2000	18	8	120	9000	27	2100	140	< 1.5	160	<1	17	21	43
		16659	7500	< 0.8	<5	42	< 0.5	< 0.8	2200	19	8	100	9000	33	2200	150	< 1.5	130	<1	18	23	44
5037757 Demorest St. (back yard)	0-5 cm	16660	6700	< 0.8	6	28	< 0.5	< 0.8	2100	20	9	210	11000	27	2000	140	< 1.5	160	1	16	21	43
		16661	7900	< 0.8	6	34	< 0.5	< 0.8	2600	23	12	310	13000	45	2200	150	< 1.5	230	2	21	24	63
	5-10 cm	16662	7100	< 0.8	<5	24	< 0.5	< 0.8	1800	18	6	68	11000	13	1800	120	< 1.5	68	<1	16	22	24
		16663	9300	< 0.8	<5	25	< 0.5	< 0.8	1900	18	7	100	14000	24	1800	120	< 1.5	97	<1	17	22	30
	10-20 cm	16664	8000	< 0.8	<5	29	< 0.5	< 0.8	1900	18	6	82	12000	19	1800	130	< 1.5	92	<1	18	23	29
		16665	8700	< 0.8	<5	30	< 0.5	< 0.8	2000	21	7	95	12000	21	1900	140	< 1.5	100	<1	18	25	31
5037754 Glover Ave. (front yard)	0-5 cm	16642	6900	< 0.8	10	54	< 0.5	1.2	3600	23	21	570	16000	83	2600	160	< 1.5	470	3	22	22	130
		16643	8800	1.1	15	72	< 0.5	1.7	5100	31	30	850	19000	130	3000	200	< 1.5	730	4	34	28	160
	5-10 cm	16644	10000	< 0.8	12	60	< 0.5	< 0.8	4000	27	17	330	18000	61	2700	200	< 1.5	440	2	33	28	110
		16645	10000	1.2	14	62	< 0.5	< 0.8	4400	28	18	320	18000	61	2900	200	< 1.5	480	2	33	30	120
	10-20 cm	16646	8500	< 0.8	8	52	< 0.5	< 0.8	2900	22	11	190	14000	36	2300	180	< 1.5	270	1	22	24	85
		16647	9800	< 0.8	7	53	< 0.5	< 0.8	3300	24	9	140	15000	25	2400	180	< 1.5	180	<1	28	26	68
5037755 Glover Ave. (back yard)	0-5 cm	16648	10000	< 0.8	14	76	< 0.5	0.9	3100	26	19	590	21000	64	2300	390	< 1.5	400	4	30	28	57
		16649	16000	< 0.8	16	110	< 0.5	0.9	4500	35	18	520	26000	57	2800	550	< 1.5	410	4	46	36	61
	5-10 cm	16650	13000	< 0.8	9	59	< 0.5	< 0.8	3600	27	9	200	16000	28	2400	190	< 1.5	220	2	39	30	43
		16651	12000	< 0.8	9	81	< 0.5	< 0.8	3700	28	10	200	15000	31	2400	220	< 1.5	270	2	39	30	55
	10-20 cm	16652	14000	< 0.8	11	84	< 0.5	< 0.8	4100	29	12	220	17000	30	2500	230	< 1.5	300	1	38	30	65
		16653	15000	< 0.8	9	82	< 0.5	< 0.8	4500	29	10	170	17000	29	2600	220	< 1.5	220	1	42	32	55

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037468 Gutcher St. (front yard)	0-5 cm	15383	11000	< 0.8	< 5	67	< 0.5	< 0.8	6800	35	10	**250**	15000	41	3500	210	< 1.5	**200**	< 1	45	29	68
		15384	11000	< 0.8	< 5	69	< 0.5	1	7800	37	11	**290**	15000	49	3600	210	< 1.5	**210**	< 1	43	29	78
5037469 Gutcher St. (back yard)	0-5 cm	15385	11000	< 0.8	7	79	< 0.5	< 0.8	5400	35	15	**400**	18000	72	2900	180	< 1.5	**300**	< 1	37	30	82
		15386	12000	< 0.8	9	93	< 0.5	0.9	5900	38	17	**480**	19000	90	3100	210	< 1.5	**360**	1	40	31	99
	5-10 cm	15387	11000	1	**18**	77	< 0.5	< 0.8	3700	32	12	**380**	18000	74	2700	180	< 1.5	**280**	**3**	37	31	67
		15388	10000	0.9	14	70	< 0.5	< 0.8	3600	30	12	**360**	18000	65	2600	170	< 1.5	**270**	**2**	34	30	66
	10-20 cm	15389	10000	< 0.8	11	70	< 0.5	< 0.8	2900	29	12	**250**	16000	48	2700	220	< 1.5	**210**	**2**	31	28	69
		15390	9500	< 0.8	8	67	< 0.5	< 0.8	3100	27	9	**180**	15000	54	2700	200	< 1.5	**160**	< 1	32	28	58
5037760 Gutcher Ave. (front yard)	0-5 cm	16678	7800	< 0.8	12	47	< 0.5	0.8	4200	30	16	**440**	15000	73	3700	180	< 1.5	**300**	<1	15	23	69
		16679	11000	< 0.8	9	45	< 0.5	< 0.8	7100	37	15	**360**	19000	49	4000	230	< 1.5	**280**	<1	32	31	54
	5-10 cm	16680	11000	< 0.8	12	51	< 0.5	< 0.8	4300	31	15	**290**	18000	47	3600	200	< 1.5	**340**	<1	26	29	61
		16681	11000	< 0.8	14	59	< 0.5	< 0.8	5400	33	18	**430**	19000	99	3800	200	< 1.5	**400**	<1	30	30	83
	10-20 cm	16682	9500	< 0.8	8	55	< 0.5	< 0.8	3700	29	11	**180**	16000	32	3300	180	< 1.5	**240**	<1	24	28	51
		16683	9900	< 0.8	15	58	< 0.5	< 0.8	3800	27	12	**190**	16000	39	3300	180	< 1.5	**280**	<1	25	27	64
5037761 Gutcher Ave. (back yard)	0-5 cm	16684	9500	< 0.8	17	67	< 0.5	0.9	2700	39	20	**550**	19000	66	2800	350	< 1.5	**430**	<1	24	28	82
		16685	10000	**1.6**	17	82	< 0.5	**1.2**	3600	42	**22**	**630**	20000	73	3300	330	< 1.5	**460**	<1	29	31	100
	5-10 cm	16686	9600	< 0.8	10	70	< 0.5	< 0.8	2500	34	14	**290**	16000	48	2500	260	< 1.5	**370**	<1	27	29	80
		16687	11000	< 0.8	**18**	86	< 0.5	< 0.8	3300	35	14	**330**	17000	57	3300	300	< 1.5	**360**	<1	30	31	100
	10-20 cm	16688	14000	< 0.8	15	98	< 0.5	< 0.8	4400	35	11	**200**	16000	45	3200	230	< 1.5	**320**	<1	43	34	82
		16689	15000	< 0.8	15	110	< 0.5	< 0.8	4900	41	12	**240**	18000	47	3600	280	< 1.5	**320**	<1	46	37	100

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037772 Landsend St. (front yard)	0-5 cm	16750	14000	< 0.8	<5	70	< 0.5	< 0.8	4900	44	10	**160**	17000	12	3800	230	< 1.5	**140**	1	45	37	34
		16751	13000	< 0.8	<5	53	< 0.5	< 0.8	4400	39	8	**110**	17000	8	3700	220	< 1.5	**90**	<1	42	35	23
	5-10 cm	16752	11000	< 0.8	<5	50	< 0.5	< 0.8	3500	35	8	**81**	15000	10	3100	210	< 1.5	**90**	<1	40	32	30
		16753	13000	< 0.8	<5	69	< 0.5	< 0.8	4000	38	8	**120**	16000	14	3300	230	< 1.5	**110**	<1	45	34	33
	10-20 cm	16754	9600	< 0.8	7	62	< 0.5	< 0.8	4500	31	14	**360**	16000	34	2800	200	< 1.5	**330**	1	40	30	67
		16755	9500	< 0.8	6	75	< 0.5	< 0.8	3700	30	10	**200**	15000	27	2700	240	< 1.5	**220**	<1	41	30	76
5037773 Landsend St. (back yard)	0-5 cm	16756	10000	< 0.8	6	55	< 0.5	< 0.8	2900	24	11	**240**	13000	28	2100	140	< 1.5	**240**	1	26	25	70
		16757	11000	< 0.8	8	59	< 0.5	< 0.8	3600	28	13	**250**	15000	35	2600	170	< 1.5	**240**	1	30	26	64
	5-10 cm	16758	9400	< 0.8	7	65	< 0.5	< 0.8	3200	27	9	**220**	14000	28	2300	160	< 1.5	**180**	<1	31	27	73
		16759	9300	< 0.8	5	56	< 0.5	< 0.8	3000	26	8	**190**	13000	24	2300	150	< 1.5	**170**	<1	30	27	56
	10-20 cm	16760	8500	< 0.8	6	55	< 0.5	< 0.8	2700	23	7	**170**	12000	21	2000	140	< 1.5	**160**	<1	27	24	63
		16761	11000	< 0.8	<5	59	< 0.5	< 0.8	2700	28	7	**110**	13000	12	2400	150	< 1.5	**110**	<1	29	28	40
5037768 Logan Ave. (front yard)	0-5 cm	16726	8900	< 0.8	10	98	< 0.5	**1.4**	4600	38	**28**	**920**	20000	110	3000	180	< 1.5	**800**	**6**	27	28	110
		16727	16000	< 0.8	16	140	< 0.5	**2.1**	8400	54	**41**	**1600**	28000	120	4500	260	< 1.5	**1100**	**9**	43	38	**180**
	5-10 cm	16728	18000	< 0.8	**18**	140	< 0.5	1	6900	49	**27**	**790**	26000	93	3900	270	< 1.5	**890**	**5**	45	41	100
		16729	17000	< 0.8	15	110	< 0.5	< 0.8	5500	47	**22**	**540**	23000	49	3600	260	< 1.5	**620**	**4**	41	40	77
	10-20 cm	16730	16000	0.9	13	150	< 0.5	0.9	8800	47	**23**	**510**	24000	120	4400	310	< 1.5	**810**	**4**	52	40	97
		16731	20000	< 0.8	**22**	160	< 0.5	< 0.8	7900	54	18	**380**	24000	39	5300	330	< 1.5	**600**	**4**	53	45	91
5037769 Logan Ave. (back yard)	0-5 cm	16732	11000	< 0.8	5	46	< 0.5	< 0.8	3300	29	6	**140**	14000	19	2200	170	< 1.5	**130**	**2**	35	28	35
		16733	10000	< 0.8	<5	43	< 0.5	< 0.8	3300	28	7	**140**	13000	18	2100	160	< 1.5	**130**	**2**	32	27	31
	5-10 cm	16734	11000	< 0.8	7	75	< 0.5	< 0.8	3700	32	13	**310**	16000	33	3000	200	< 1.5	**290**	**3**	32	30	58
		16735	11000	< 0.8	6	79	< 0.5	< 0.8	3200	30	10	**220**	14000	38	2700	180	< 1.5	**230**	**2**	31	28	45
	10-20 cm	16736	12000	< 0.8	10	110	< 0.5	< 0.8	4300	38	15	**340**	18000	56	3700	230	< 1.5	**380**	**3**	36	32	79
		16737	13000	< 0.8	9	120	< 0.5	< 0.8	4400	41	13	**310**	19000	36	4000	240	< 1.5	**340**	**3**	39	35	74

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037764 Morrison Ave. (front yard)	0-5 cm	16702	13000	0.9	**20**	120	< 0.5	**2.1**	9900	51	**47**	**1200**	28000	**140**	3800	280	< 1.5	**1300**	**7**	42	35	160
		16703	13000	< 0.8	**21**	120	< 0.5	**2.2**	10000	51	**46**	**1400**	28000	**140**	4100	300	< 1.5	**1400**	**8**	43	36	**180**
	5-10 cm	16704	13000	< 0.8	**18**	83	< 0.5	< 0.8	4300	40	14	**310**	18000	89	3300	260	< 1.5	**380**	**2**	36	34	78
		16705	13000	< 0.8	17	95	< 0.5	< 0.8	4000	39	15	**390**	18000	64	3200	280	< 1.5	**420**	**2**	35	34	84
	10-20 cm	16706	15000	< 0.8	12	99	< 0.5	< 0.8	4300	45	11	**170**	19000	47	4400	310	< 1.5	**210**	1	39	39	79
		16707	13000	< 0.8	16	81	< 0.5	< 0.8	3600	36	10	**190**	17000	54	3200	280	< 1.5	**210**	**2**	36	34	70
5037765 Morrison Ave. (back yard)	0-5 cm	16708	14000	1	**19**	150	< 0.5	**2**	8800	56	**45**	**1300**	28000	**160**	4500	270	< 1.5	**1300**	1	43	36	**180**
		16709	15000	**1.1**	16	130	< 0.5	**1.5**	9400	50	**35**	**1000**	25000	**140**	4100	270	< 1.5	**980**	**5**	48	38	150
	5-10 cm	16710	19000	< 0.8	13	140	< 0.5	< 0.8	7700	50	20	**520**	22000	64	4300	300	< 1.5	**570**	**2**	52	43	110
		16711	19000	< 0.8	11	120	< 0.5	< 0.8	6500	47	13	**320**	20000	45	4400	320	< 1.5	**320**	**2**	52	42	85
	10-20 cm	16712	21000	< 0.8	10	160	< 0.5	< 0.8	5700	54	14	**300**	22000	67	4800	340	< 1.5	**320**	1	54	46	87
		16713	21000	< 0.8	9	160	< 0.5	< 0.8	6100	59	14	**270**	25000	110	6300	390	< 1.5	**280**	1	52	48	94
5037750 Rowat St. (front yard)	0-5 cm	16624	8100	< 0.8	<5	27	< 0.5	< 0.8	1500	22	4	28	11000	9	1800	120	< 1.5	33	<1	16	24	17
		16625	8300	< 0.8	11	56	< 0.5	**1.3**	5900	26	21	**560**	16000	68	2500	180	< 1.5	**520**	**3**	23	25	93
	5-10 cm	16626	8100	< 0.8	12	48	< 0.5	< 0.8	3400	25	13	**280**	14000	32	2200	140	< 1.5	**350**	**2**	21	26	66
		16627	7800	< 0.8	11	46	< 0.5	< 0.8	3100	23	12	**250**	13000	29	2200	140	< 1.5	**330**	1	20	25	68
	10-20 cm	16628	7300	< 0.8	9	41	< 0.5	< 0.8	2600	20	10	**170**	12000	24	2200	130	< 1.5	**230**	1	19	23	53
		16629	6600	< 0.8	9	39	< 0.5	< 0.8	2000	18	8	**170**	11000	24	1900	110	< 1.5	**190**	<1	11	20	48
5037751 Rowat St. (back yard)	0-5 cm	16618	14000	< 0.8	15	79	< 0.5	**2**	6400	39	**33**	**700**	26000	110	3100	230	< 1.5	**740**	**4**	38	32	140
		16619	11000	**1.1**	14	79	< 0.5	**1.9**	5200	39	**30**	**710**	23000	110	2800	230	< 1.5	**600**	**4**	39	32	150
	5-10 cm	16620	10000	< 0.8	15	78	< 0.5	**1.1**	5200	30	**24**	**430**	20000	71	3100	200	< 1.5	**520**	**2**	30	30	120
		16621	8200	< 0.8	15	74	< 0.5	**1.2**	3100	30	**28**	**510**	21000	82	2000	200	< 1.5	**540**	**2**	23	28	120
	10-20 cm	16622	6900	< 0.8	9	40	< 0.5	< 0.8	2300	19	10	**140**	12000	36	1800	130	< 1.5	**190**	<1	19	24	48
		16623	7000	< 0.8	12	51	< 0.5	< 0.8	2200	21	15	**210**	15000	43	2000	150	< 1.5	**260**	<1	17	23	64

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037752 Rowat St. (front yard)	0-5 cm	16630	8500	< 0.8	<5	34	< 0.5	< 0.8	2000	24	9	**210**	11000	18	1800	160	< 1.5	**160**	**2**	19	24	30
		16631	8500	**2.7**	<5	31	< 0.5	< 0.8	1700	24	7	**150**	11000	15	1800	140	< 1.5	**120**	1	17	23	27
	5-10 cm	16632	10000	< 0.8	<5	30	< 0.5	< 0.8	2400	24	4	28	11000	8	1900	140	< 1.5	33	<1	33	26	19
		16633	7600	< 0.8	<5	29	< 0.5	< 0.8	2100	22	5	35	12000	5	2300	130	< 1.5	42	<1	22	26	18
	10-20 cm	16634	9300	< 0.8	<5	38	< 0.5	< 0.8	2300	24	5	49	13000	16	2100	180	< 1.5	**48**	<1	30	26	24
		16635	8900	< 0.8	<5	33	< 0.5	< 0.8	2100	25	5	55	12000	15	2100	160	< 1.5	**50**	<1	27	26	21
5037753 Rowat St. (back yard)	0-5 cm	16636	9700	< 0.8	7	52	< 0.5	**1.1**	5900	32	12	**340**	16000	31	2700	190	< 1.5	**260**	**3**	36	41	51
		16637	9700	< 0.8	8	53	< 0.5	**1.3**	6600	32	15	**470**	17000	38	2800	200	< 1.5	**350**	**5**	39	40	62
	5-10 cm	16638	7800	< 0.8	5	30	< 0.5	< 0.8	2800	21	7	65	13000	9	2300	140	< 1.5	**67**	<1	21	29	25
		16639	8200	< 0.8	5	35	< 0.5	< 0.8	3500	23	7	**90**	14000	13	2200	160	< 1.5	**89**	1	22	35	29
	10-20 cm	16640	8500	< 0.8	11	50	< 0.5	**1.1**	5900	25	21	**520**	16000	61	2500	180	< 1.5	**510**	**3**	27	25	86
		16641	7600	< 0.8	5	27	< 0.5	< 0.8	2400	20	6	42	12000	6	2300	130	< 1.5	**49**	<1	18	26	19
5037433 Tuddenham St. (front yard)	0-5 cm	15168	7000	< 0.8	5	53	< 0.5	< 0.8	3400	54	14	**430**	14000	49	2700	170	< 1.5	**280**	**3**	22	24	56
		15169	7600	< 0.8	5	53	< 0.5	< 0.8	3500	53	14	**440**	15000	45	2800	160	< 1.5	**290**	**2**	25	26	46
	5-10 cm	15170	7600	< 0.8	< 5	43	< 0.5	< 0.8	3100	29	12	**250**	14000	30	2700	200	< 1.5	**230**	1	22	25	46
		15171	7900	< 0.8	7	45	< 0.5	< 0.8	3500	30	13	**250**	14000	29	2800	210	< 1.5	**240**	< 1	25	26	45
	10-20 cm	15172	6500	< 0.8	7	40	< 0.5	< 0.8	2700	25	9	**150**	13000	24	2600	190	< 1.5	**180**	1	18	23	37
		15173	6700	< 0.8	6	41	< 0.5	< 0.8	2800	27	9	**160**	13000	22	2600	180	< 1.5	**170**	1	20	24	37
5037434 Tuddenham St. (back yard)	0-5 cm	15174	10000	1	8	73	< 0.5	< 0.8	4200	34	11	**290**	16000	66	3700	210	< 1.5	**230**	1	27	30	100
		15175	15000	< 0.8	8	100	< 0.5	< 0.8	5900	43	12	**260**	18000	56	3900	240	< 1.5	**240**	1	44	37	110
	5-10 cm	15176	13000	< 0.8	8	91	< 0.5	< 0.8	4600	42	12	**270**	19000	62	3600	250	< 1.5	**250**	1	37	33	92
		15177	12000	< 0.8	8	91	< 0.5	< 0.8	4700	40	12	**240**	17000	58	3700	250	< 1.5	**240**	1	38	34	84
	10-20 cm	15178	13000	< 0.8	8	100	< 0.5	< 0.8	4500	39	12	**230**	18000	61	3500	300	< 1.5	**230**	1	42	34	85
		15179	15000	**1.2**	8	100	< 0.5	< 0.8	4900	42	11	**230**	17000	53	3500	240	< 1.5	**230**	1	44	35	72

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037766 Tuddenham Ave. (front yard)	0-5 cm	16714	12000	< 0.8	15	84	< 0.5	0.9	4300	36	**29**	**950**	22000	**300**	2500	200	< 1.5	**720**	**5**	40	32	130
		16715	8500	< 0.8	**19**	67	< 0.5	**1.1**	3300	31	**28**	**950**	21000	**320**	2200	170	< 1.5	**800**	**5**	29	28	130
	5-10 cm	16716	7500	< 0.8	17	59	< 0.5	< 0.8	2300	24	15	**470**	15000	**130**	1900	170	< 1.5	**440**	**3**	19	24	110
		16717	7600	< 0.8	16	62	< 0.5	< 0.8	2200	24	14	**450**	15000	**130**	1800	170	< 1.5	**410**	**3**	18	24	98
	10-20 cm	16718	7100	< 0.8	12	58	< 0.5	< 0.8	1900	23	10	**260**	13000	78	1800	170	< 1.5	**270**	**2**	15	22	84
		16719	7700	< 0.8	11	65	< 0.5	< 0.8	1800	23	11	**240**	13000	79	1800	190	< 1.5	**280**	**2**	17	24	81
5037767 Tuddenham Ave. (back yard)	0-5 cm	16720	7300	< 0.8	12	130	< 0.5	**1.7**	3500	30	**25**	**630**	19000	**200**	2300	190	< 1.5	**480**	**5**	25	23	**180**
		16721	7700	< 0.8	13	90	< 0.5	**1.7**	3000	28	20	**590**	17000	**170**	2200	180	< 1.5	**460**	**4**	23	24	140
	5-10 cm	16722	7800	< 0.8	10	78	< 0.5	1	2600	25	16	**430**	16000	**180**	2000	180	< 1.5	**400**	**3**	23	25	130
		16723	7700	< 0.8	14	79	< 0.5	< 0.8	1900	23	12	**380**	14000	**210**	1800	200	< 1.5	**310**	**3**	17	24	110
	10-20 cm	16724	7100	< 0.8	9	77	< 0.5	< 0.8	1700	21	8	**220**	12000	**240**	1500	150	< 1.5	**240**	**2**	18	21	130
		16725	7400	< 0.8	10	62	< 0.5	< 0.8	1400	19	6	**160**	11000	120	1300	120	< 1.5	**170**	**2**	16	21	62
5037774 Walter Ave. (front yard)	0-5 cm	16762	10000	< 0.8	6	35	< 0.5	< 0.8	4000	29	10	**290**	13000	16	2100	190	< 1.5	**200**	**2**	34	28	35
		16763	9800	< 0.8	<5	34	< 0.5	< 0.8	4100	27	11	**330**	13000	17	2000	200	< 1.5	**230**	**2**	32	27	33
	5-10 cm	16764	8600	< 0.8	<5	30	< 0.5	< 0.8	1500	25	6	**140**	11000	10	1800	190	< 1.5	**83**	<1	13	22	24
		16765	12000	< 0.8	<5	41	< 0.5	< 0.8	3700	31	6	**130**	14000	9	2300	240	< 1.5	**87**	<1	40	31	27
	10-20 cm	16766	13000	< 0.8	10	76	< 0.5	0.9	5900	46	18	**470**	19000	42	2700	260	< 1.5	**450**	**2**	43	38	79
		16767	13000	< 0.8	12	83	< 0.5	1	6400	50	18	**440**	19000	43	2900	250	< 1.5	**510**	**2**	44	40	79
5037775 Walter Ave. (back yard)	0-5 cm	16768	14000	< 0.8	5	67	< 0.5	< 0.8	8400	46	12	**180**	19000	19	4500	290	< 1.5	**190**	<1	47	38	52
		16769	15000	< 0.8	6	75	< 0.5	< 0.8	7800	46	13	**200**	19000	20	4100	280	< 1.5	**230**	1	47	38	52
	5-10 cm	16770	13000	< 0.8	7	70	< 0.5	< 0.8	4400	37	13	**250**	17000	23	3100	220	< 1.5	**290**	1	43	36	61
		16771	13000	< 0.8	11	70	< 0.5	< 0.8	4200	37	15	**360**	18000	35	3000	210	< 1.5	**360**	**2**	42	36	73
	10-20 cm	16772	10000	< 0.8	11	47	< 0.5	< 0.8	2900	30	15	**450**	17000	26	2500	180	< 1.5	**410**	**4**	26	30	80
		16773	12000	< 0.8	12	58	< 0.5	< 0.8	2500	33	13	**410**	18000	21	2800	180	< 1.5	**350**	**3**	30	33	73

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Azilda																						
5028062 Albert St. (back yard)	0 - 5 cm	19072	5400	< 0.8	< 5	26	< 0.5	< 0.8	8500	17	5	64	7500	11	2800	170	< 1.5	**89**	< 1	29	17	28
		19073	5300	< 0.8	< 5	29	< 0.5	< 0.8	11000	19	6	80	8600	13	3700	210	< 1.5	**98**	< 1	28	18	39
	5 - 10 cm	19074	5400	< 0.8	< 5	25	< 0.5	< 0.8	8800	18	5	59	7500	10	3200	170	< 1.5	**88**	< 1	27	17	26
		19075	5200	< 0.8	6	26	< 0.5	< 0.8	9800	18	5	51	7800	8	3200	160	< 1.5	**72**	< 1	30	18	27
	10 - 20 cm	19076	6700	< 0.8	< 5	31	< 0.5	< 0.8	9100	19	4	38	8600	7	2600	170	< 1.5	**58**	< 1	34	19	19
		19077	7100	< 0.8	< 5	34	< 0.5	< 0.8	8300	21	4	24	8100	5	2600	170	< 1.5	38	< 1	38	21	19
5028063 Alphonse St. (front yard)	0 - 5 cm	19078	10000	< 0.8	5	44	< 0.5	< 0.8	8200	37	6	35	14000	9	4200	270	< 1.5	**56**	< 1	47	32	29
		19079	11000	< 0.8	6	50	< 0.5	< 0.8	9200	40	7	40	15000	10	4400	290	< 1.5	**59**	< 1	50	34	31
	5 - 10 cm	19080	6700	< 0.8	< 5	26	< 0.5	< 0.8	5300	26	4	18	11000	5	2900	190	< 1.5	31	< 1	33	25	21
		19081	8600	< 0.8	< 5	33	< 0.5	< 0.8	7600	31	5	20	13000	5	4000	230	< 1.5	35	< 1	43	28	21
	10 - 20 cm	19082	7000	< 0.8	< 5	26	< 0.5	< 0.8	6000	29	4	13	11000	4	3400	200	< 1.5	26	< 1	39	26	17
		19083	5500	< 0.8	< 5	19	< 0.5	< 0.8	7500	22	4	11	10000	3	4100	170	< 1.5	23	< 1	29	22	15
5028073 Belanger St. (back yard)	0 - 5 cm	19138	13000	< 0.8	6	57	< 0.5	< 0.8	15000	42	11	**120**	18000	27	6800	360	< 1.5	**160**	1	53	37	56
		19139	14000	< 0.8	5	65	< 0.5	< 0.8	12000	47	10	**110**	19000	23	5600	350	< 1.5	**150**	< 1	54	41	53
	5 - 10 cm	19140	16000	< 0.8	< 5	69	< 0.5	< 0.8	12000	50	9	62	20000	14	5900	340	< 1.5	**95**	< 1	56	43	40
		19141	14000	< 0.8	< 5	59	< 0.5	< 0.8	12000	45	8	59	19000	13	5600	300	< 1.5	**84**	< 1	54	41	38
	10 - 20 cm	19142	17000	< 0.8	< 5	71	< 0.5	< 0.8	12000	52	8	33	20000	9	6400	310	< 1.5	**56**	< 1	57	44	35
		19143	13000	< 0.8	< 5	49	< 0.5	< 0.8	13000	43	7	24	18000	8	7800	270	< 1.5	40	< 1	50	38	27
5028059 Birch St. (front yard)	0 - 5 cm	19054	14000	< 0.8	10	60	< 0.5	< 0.8	15000	46	12	**140**	19000	30	8100	320	< 1.5	**170**	1	53	40	90
		19055	13000	< 0.8	14	61	< 0.5	0.9	13000	46	11	**130**	18000	29	7000	320	1.9	**160**	1	50	38	77
	5 - 10 cm	19056	12000	< 0.8	10	57	< 0.5	< 0.8	14000	46	11	**110**	16000	22	7400	320	< 1.5	**140**	1	49	38	81
		19057	14000	< 0.8	13	64	< 0.5	1.0	12000	46	11	**120**	18000	26	6600	330	< 1.5	**150**	1	49	40	77
	10 - 20 cm	19058	15000	< 0.8	9	59	< 0.5	< 0.8	14000	49	9	61	19000	13	8100	330	< 1.5	**95**	1	55	41	53
		19059	16000	< 0.8	9	66	< 0.5	< 0.8	10000	52	9	70	19000	15	6700	350	< 1.5	**91**	< 1	55	43	55
5028065 Brunet St. (back yard)	0 - 5 cm	19090	7400	< 0.8	< 5	29	< 0.5	< 0.8	6300	29	7	51	14000	24	3300	210	< 1.5	**69**	1	34	29	36
		19091	7000	< 0.8	< 5	28	< 0.5	< 0.8	5200	29	6	46	14000	18	2800	200	< 1.5	**65**	< 1	34	29	35
	5 - 10 cm	19092	6100	< 0.8	< 5	23	< 0.5	< 0.8	4700	26	6	36	12000	19	2600	180	< 1.5	**52**	< 1	30	26	28
		19093	6700	< 0.8	< 5	24	< 0.5	< 0.8	4500	27	6	41	13000	15	2500	190	< 1.5	**56**	< 1	31	28	27
	10 - 20 cm	19094	5100	< 0.8	< 5	17	< 0.5	< 0.8	3300	23	4	15	11000	7	2200	150	< 1.5	25	< 1	24	24	15
		19095	6200	< 0.8	< 5	22	< 0.5	< 0.8	3700	24	5	21	12000	9	2300	170	< 1.5	31	**2**	26	26	20
5028072 Denis Cr. (back yard)	0 - 5 cm	19132	9800	< 0.8	< 5	39	< 0.5	< 0.8	5800	33	6	51	14000	12	3500	230	< 1.5	**69**	< 1	40	30	40
		19133	9400	< 0.8	< 5	39	< 0.5	< 0.8	5700	32	6	52	14000	12	3300	240	< 1.5	**64**	< 1	38	29	40

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	19134	11000	< 0.8	< 5	43	< 0.5	< 0.8	5800	38	7	50	15000	11	3800	260	< 1.5	**70**	< 1	43	34	35
		19135	10000	< 0.8	< 5	43	< 0.5	< 0.8	5500	37	7	49	15000	12	3700	250	< 1.5	**68**	< 1	39	32	36
	10 - 20 cm	19136	8700	< 0.8	< 5	32	< 0.5	< 0.8	4800	31	5	34	13000	8	3300	220	< 1.5	**50**	< 1	35	29	26
		19137	6200	< 0.8	< 5	20	< 0.5	< 0.8	3500	26	4	19	11000	5	2700	170	< 1.5	30	< 1	26	24	18
5028066 Ellen St. (front yard)	0 - 5 cm	19096	9500	< 0.8	< 5	36	< 0.5	< 0.8	5600	33	7	65	15000	19	3600	200	< 1.5	**84**	**2**	34	29	31
		19097	9900	< 0.8	< 5	38	< 0.5	< 0.8	5600	33	7	67	15000	17	3500	200	< 1.5	**85**	**2**	37	30	32
	5 - 10 cm	19098	9300	< 0.8	< 5	34	< 0.5	< 0.8	5300	32	6	49	15000	9	3500	200	< 1.5	**67**	1	35	29	25
		19099	11000	< 0.8	< 5	47	< 0.5	< 0.8	6100	40	6	44	16000	9	3500	230	< 1.5	**62**	< 1	45	32	24
	10 - 20 cm	19100	6900	< 0.8	< 5	25	< 0.5	< 0.8	5600	30	4	11	12000	4	2800	200	< 1.5	21	< 1	38	28	10
		19101	6700	< 0.8	< 5	24	< 0.5	< 0.8	5400	26	4	10	11000	3	2900	190	< 1.5	18	< 1	36	26	10
5028061 Laurin St. (front yard)	0 - 5 cm	19066	10000	< 0.8	< 5	39	< 0.5	< 0.8	18000	37	8	69	16000	14	9200	260	< 1.5	**86**	< 1	47	33	33
		19067	10000	< 0.8	5	43	< 0.5	< 0.8	17000	37	9	82	16000	17	8900	260	< 1.5	**100**	< 1	45	34	41
	5 - 10 cm	19068	8000	< 0.8	8	31	< 0.5	< 0.8	20000	31	6	46	13000	10	9300	220	< 1.5	**65**	< 1	43	29	23
		19069	9200	< 0.8	7	34	< 0.5	< 0.8	22000	33	7	45	15000	10	10000	240	< 1.5	**62**	< 1	46	32	24
	10 - 20 cm	19070	8200	< 0.8	< 5	30	< 0.5	< 0.8	20000	30	6	33	13000	7	9100	210	< 1.5	**48**	< 1	43	29	19
		19071	9100	< 0.8	5	34	< 0.5	< 0.8	24000	34	6	28	14000	7	11000	240	< 1.5	**46**	< 1	49	32	21
5028070 Notre Dame St. (front yard)	0 - 5 cm	19120	12000	< 0.8	< 5	52	< 0.5	< 0.8	7000	40	8	59	16000	15	3900	250	< 1.5	**84**	1	46	34	35
		19121	12000	< 0.8	< 5	52	< 0.5	< 0.8	6900	42	8	60	16000	14	4000	250	< 1.5	**83**	1	46	34	35
	5 - 10 cm	19122	10000	< 0.8	< 5	39	< 0.5	< 0.8	5900	37	7	52	15000	10	3700	210	< 1.5	**78**	< 1	40	31	31
		19123	8300	< 0.8	< 5	32	< 0.5	< 0.8	4600	31	6	42	13000	7	3100	190	< 1.5	**62**	< 1	32	27	23
	10 - 20 cm	19124	5700	< 0.8	< 5	20	< 0.5	< 0.8	3100	25	4	14	10000	3	2400	150	< 1.5	30	< 1	23	23	12
		19125	5400	< 0.8	< 5	19	< 0.5	< 0.8	3100	25	4	11	11000	3	2300	160	< 1.5	27	< 1	22	25	11
5028060 Oak St. (back yard)	0 - 5 cm	19060	12000	< 0.8	8	49	< 0.5	< 0.8	8100	38	6	45	13000	9	3500	240	< 1.5	**62**	< 1	52	31	31
		19061	12000	< 0.8	5	50	< 0.5	< 0.8	7900	38	6	45	13000	9	3400	230	< 1.5	**60**	< 1	52	31	30
	5 - 10 cm	19062	11000	< 0.8	6	43	< 0.5	< 0.8	8300	34	6	43	13000	9	3600	230	< 1.5	**58**	< 1	51	29	27
		19063	12000	< 0.8	5	44	< 0.5	< 0.8	8200	34	6	44	13000	10	3400	230	< 1.5	**59**	< 1	52	30	27
	10 - 20 cm	19064	13000	< 0.8	6	49	< 0.5	< 0.8	14000	39	7	55	16000	11	6500	270	< 1.5	**73**	< 1	54	34	33
		19065	12000	< 0.8	6	45	< 0.5	< 0.8	9800	38	7	60	15000	12	4700	240	2.0	**78**	< 1	47	32	32

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028071 Paquette St. (back yard)	0 - 5 cm	19126	11000	< 0.8	6	52	< 0.5	< 0.8	6900	35	6	53	14000	13	3200	220	< 1.5	**76**	< 1	42	31	36
		19127	8800	< 0.8	< 5	36	< 0.5	< 0.8	6400	30	5	45	13000	11	3300	190	< 1.5	**56**	< 1	32	27	41
	5 - 10 cm	19128	8600	< 0.8	< 5	35	< 0.5	< 0.8	4600	28	5	37	12000	10	2800	170	< 1.5	**46**	< 1	27	26	27
		19129	6900	< 0.8	< 5	27	< 0.5	< 0.8	6700	25	5	29	12000	7	3400	190	< 1.5	42	< 1	28	24	22
	10 - 20 cm	19130	6000	< 0.8	< 5	23	< 0.5	< 0.8	4400	23	4	15	11000	5	2700	220	< 1.5	26	< 1	23	24	18
		19131	4900	< 0.8	< 5	16	< 0.5	< 0.8	6100	21	4	12	9700	3	3100	160	< 1.5	20	< 1	20	21	13
5028067 Paul St. (front yard)	0 - 5 cm	19102	8200	< 0.8	< 5	35	< 0.5	< 0.8	6500	29	8	54	14000	14	3100	210	< 1.5	**75**	< 1	39	28	31
		19103	7500	< 0.8	< 5	30	< 0.5	< 0.8	6000	26	8	54	13000	14	2900	190	< 1.5	**70**	< 1	36	27	28
	5 - 10 cm	19104	6900	< 0.8	< 5	28	< 0.5	< 0.8	5500	27	8	46	12000	13	3100	200	< 1.5	**67**	< 1	33	26	27
		19105	6700	< 0.8	< 5	27	< 0.5	< 0.8	5400	27	8	48	12000	13	3200	180	< 1.5	**69**	< 1	29	25	46
	10 - 20 cm	19106	5400	< 0.8	< 5	22	< 0.5	< 0.8	4100	23	5	26	11000	7	2800	160	< 1.5	39	< 1	21	23	17
		19107	6200	< 0.8	< 5	23	< 0.5	< 0.8	4800	24	6	26	11000	7	3100	170	< 1.5	41	< 1	25	24	20
5028064 Poulin St. (front yard)	0 - 5 cm	19084	9900	< 0.8	< 5	36	< 0.5	< 0.8	7200	39	7	57	15000	13	5000	220	< 1.5	**82**	< 1	38	31	32
		19085	10000	< 0.8	< 5	38	< 0.5	< 0.8	6000	40	7	60	15000	13	4300	230	< 1.5	**84**	< 1	39	32	33
	5 - 10 cm	19086	8800	< 0.8	< 5	30	< 0.5	< 0.8	4600	34	6	42	14000	8	3700	200	< 1.5	**61**	< 1	34	29	23
		19087	6700	< 0.8	< 5	23	< 0.5	< 0.8	3500	30	5	24	12000	5	3000	170	< 1.5	40	< 1	27	27	16
	10 - 20 cm	19088	5100	< 0.8	< 5	16	< 0.5	< 0.8	3000	24	4	10	10000	3	2200	140	< 1.5	18	< 1	24	22	9
		19089	5900	< 0.8	< 5	19	< 0.5	< 0.8	3500	24	4	10	11000	3	2300	150	< 1.5	20	< 1	28	24	10
5028069 Rayside Ave. (back yard)	0 - 5 cm	19114	6200	< 0.8	< 5	27	< 0.5	< 0.8	6100	24	6	36	11000	9	3700	160	< 1.5	**47**	< 1	17	21	19
		19115	7800	< 0.8	< 5	30	< 0.5	< 0.8	7400	27	6	35	12000	9	3700	190	< 1.5	**50**	< 1	34	26	19
	5 - 10 cm	19116	8700	< 0.8	< 5	33	< 0.5	< 0.8	9500	29	6	33	13000	9	4600	210	< 1.5	**45**	< 1	42	29	22
		19117	9300	< 0.8	< 5	37	< 0.5	< 0.8	9700	32	6	30	14000	9	4500	230	< 1.5	**46**	< 1	46	31	22
	10 - 20 cm	19118	10000	< 0.8	< 5	43	< 0.5	< 0.8	9600	35	7	35	15000	9	4600	250	< 1.5	**44**	< 1	47	31	23
		19119	8200	< 0.8	< 5	32	< 0.5	< 0.8	8500	29	7	28	13000	8	4100	210	< 1.5	42	< 1	42	29	20
5028068 Wahamaa St. (front yard)	0 - 5 cm	19108	9300	< 0.8	< 5	31	< 0.5	< 0.8	4600	27	5	26	12000	6	2500	190	< 1.5	39	< 1	32	26	15
		19109	8800	< 0.8	< 5	30	< 0.5	< 0.8	4500	26	5	22	12000	6	2500	190	< 1.5	35	< 1	32	26	15
	5 - 10 cm	19110	6000	< 0.8	< 5	19	< 0.5	< 0.8	3300	24	4	8	10000	3	2200	160	< 1.5	17	< 1	22	23	9
		19111	6500	< 0.8	< 5	21	< 0.5	< 0.8	3700	25	4	8	10000	3	2400	170	< 1.5	18	< 1	24	24	11
	10 - 20 cm	19112	6200	< 0.8	< 5	23	< 0.5	< 0.8	4700	26	4	9	10000	3	2700	180	< 1.5	19	< 1	27	24	11
		19113	6400	< 0.8	< 5	25	< 0.5	< 0.8	4300	26	5	14	10000	4	2800	170	< 1.5	24	< 1	21	23	12

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Garson																						
5028110 Catherine Dr. (back yard)	0 - 5 cm	21647	8200	< 0.8	7	45	< 0.5	< 0.8	6300	27	7	79	11000	16	2300	180	< 1.5	**85**	< 1	35	26	33
		21648	8100	< 0.8	6	44	< 0.5	< 0.8	7100	26	8	**91**	11000	19	2400	170	< 1.5	**97**	< 1	34	25	31
	5 - 10 cm	21649	7800	< 0.8	8	33	< 0.5	< 0.8	4300	24	6	54	11000	11	2200	160	< 1.5	**62**	< 1	28	26	26
		21650	8400	< 0.8	8	36	< 0.5	< 0.8	5300	25	6	65	12000	12	2200	160	< 1.5	**71**	< 1	31	27	25
	10 - 20 cm	21651	7800	< 0.8	6	29	< 0.5	< 0.8	3100	22	5	42	11000	8	2000	160	< 1.5	**49**	< 1	26	25	25
5028105 Cedar St. (front yard)	0 - 5 cm	21676	8700	< 0.8	6	50	< 0.5	< 0.8	3900	29	8	74	14000	46	2800	190	< 1.5	**84**	< 1	35	29	61
		21677	12000	< 0.8	5	74	< 0.5	< 0.8	5000	37	9	75	15000	40	3100	210	< 1.5	**90**	< 1	42	32	72
	5 - 10 cm	21678	11000	< 0.8	7	70	< 0.5	< 0.8	4500	34	10	**95**	15000	62	2700	200	< 1.5	**110**	< 1	41	29	69
		21679	10000	< 0.8	6	59	< 0.5	< 0.8	5100	33	9	72	15000	45	2900	200	< 1.5	**91**	< 1	40	30	80
	10 - 20 cm	21680	11000	< 0.8	10	81	< 0.5	< 0.8	4700	34	12	**130**	16000	100	2700	210	< 1.5	**150**	< 1	41	31	81
		21681	9400	< 0.8	5	51	< 0.5	< 0.8	4300	31	8	61	14000	61	2700	200	< 1.5	**77**	< 1	37	29	50
5028113 Cedargreen Dr. (front yard)	0 - 5 cm	19420	12000	< 0.8	< 5	51	< 0.5	< 0.8	3500	32	5	43	14000	6	2200	220	< 1.5	**51**	< 1	41	30	22
		19421	12000	< 0.8	< 5	52	< 0.5	< 0.8	3500	33	5	38	13000	6	2300	220	< 1.5	**47**	< 1	42	31	21
	5 - 10 cm	19422	11000	< 0.8	< 5	44	< 0.5	< 0.8	3200	27	5	44	13000	6	2100	220	< 1.5	**49**	< 1	39	29	21
		19423	8300	< 0.8	< 5	34	< 0.5	< 0.8	3000	23	5	37	13000	6	2000	190	< 1.5	**45**	< 1	30	25	17
	10 - 20 cm	19424	7000	< 0.8	< 5	29	< 0.5	< 0.8	3100	21	5	26	12000	4	2300	160	< 1.5	36	< 1	25	23	15
		19425	6500	< 0.8	< 5	27	< 0.5	< 0.8	3500	22	5	22	12000	4	2400	160	< 1.5	30	< 1	27	24	14
5028104 Desjardins St. (back yard)	0 - 5 cm	21682	7400	< 0.8	5	48	< 0.5	< 0.8	3900	28	8	83	12000	46	2500	160	< 1.5	**75**	< 1	27	25	71
		21683	7200	< 0.8	7	42	< 0.5	< 0.8	4000	27	8	82	13000	50	2800	160	< 1.5	**76**	< 1	24	24	70
	5 - 10 cm	21684	6900	< 0.8	6	38	< 0.5	< 0.8	3000	26	8	79	12000	47	2300	150	< 1.5	**74**	< 1	24	24	66
		21685	6400	< 0.8	8	35	< 0.5	< 0.8	2900	24	7	78	11000	46	2300	140	< 1.5	**71**	< 1	22	23	60
	10 - 20 cm	21686	6000	< 0.8	6	30	< 0.5	< 0.8	1900	22	7	61	11000	41	2200	130	< 1.5	**57**	< 1	17	22	48
		21687	6400	< 0.8	5	31	< 0.5	< 0.8	2100	23	7	58	12000	37	2200	140	< 1.5	**57**	< 1	20	24	42
5028112 Donnelly Dr. (front yard)	0 - 5 cm	19426	7900	< 0.8	< 5	34	< 0.5	< 0.8	5600	29	7	71	13000	14	2500	170	< 1.5	**85**	< 1	27	25	26
		19427	8200	< 0.8	7	33	< 0.5	< 0.8	5100	26	7	73	13000	15	2400	170	< 1.5	**85**	< 1	29	25	26
	5 - 10 cm	19428	8200	< 0.8	< 5	33	< 0.5	< 0.8	4400	26	5	54	12000	11	2300	160	< 1.5	**68**	< 1	25	25	24
		19429	8400	< 0.8	< 5	34	< 0.5	< 0.8	5200	26	6	63	13000	12	2400	170	< 1.5	**76**	< 1	28	26	24
	10 - 20 cm	19430	8100	< 0.8	< 5	32	< 0.5	< 0.8	4300	22	5	33	12000	6	2300	150	< 1.5	**47**	< 1	28	24	18
		19431	8600	< 0.8	< 5	34	< 0.5	< 0.8	5200	23	5	47	12000	8	2500	170	< 1.5	**60**	< 1	29	26	20

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028117 Eva St. (front yard)	0 - 5 cm	19396	8000	< 0.8	7	34	< 0.5	< 0.8	4200	23	8	**97**	11000	23	2100	150	< 1.5	**99**	1	28	25	33
		19397	7400	< 0.8	7	31	< 0.5	< 0.8	3400	23	7	78	11000	20	2000	140	< 1.5	**87**	1	24	24	35
	5 - 10 cm	19398	6500	< 0.8	< 5	21	< 0.5	< 0.8	2100	21	5	38	10000	9	2000	130	**3.2**	**46**	< 1	21	23	19
		19399	6900	< 0.8	< 5	23	< 0.5	< 0.8	2400	22	5	43	11000	9	2000	140	< 1.5	**50**	< 1	21	22	20
	10 - 20 cm	19400	8700	< 0.8	< 5	34	< 0.5	< 0.8	2800	25	5	24	11000	7	2100	160	< 1.5	34	< 1	31	25	22
		19401	8100	< 0.8	< 5	32	< 0.5	< 0.8	2800	23	5	25	11000	6	2200	150	< 1.5	35	< 1	30	26	17
5028111 Maureen St. (back yard)	0 - 5 cm	21641	11000	< 0.8	< 5	50	< 0.5	< 0.8	4300	29	6	62	14000	12	2400	200	< 1.5	**71**	< 1	38	32	32
		21642	11000	< 0.8	5	53	< 0.5	< 0.8	4600	31	6	65	15000	11	2500	200	< 1.5	**73**	< 1	39	32	31
	5 - 10 cm	21643	8800	< 0.8	7	39	< 0.5	< 0.8	3600	24	6	58	13000	11	2200	160	< 1.5	**70**	< 1	29	29	29
		21644	8500	< 0.8	7	43	< 0.5	< 0.8	3400	24	6	66	13000	11	2300	170	< 1.5	**69**	< 1	23	28	31
	10 - 20 cm	21645	7300	< 0.8	5	35	< 0.5	< 0.8	2700	23	5	45	12000	9	2200	150	< 1.5	**55**	< 1	20	28	28
		21646	9000	< 0.8	7	51	< 0.5	< 0.8	3600	24	6	65	13000	10	2000	210	< 1.5	**69**	< 1	29	29	33
5028107 McDougall St. (front yard)	0 - 5 cm	21664	6700	< 0.8	< 5	28	< 0.5	< 0.8	2200	23	5	21	11000	12	2100	140	< 1.5	30	1	22	24	29
		21665	7000	< 0.8	< 5	30	< 0.5	< 0.8	2200	23	5	20	11000	11	2100	140	< 1.5	30	< 1	23	24	30
	5 - 10 cm	21666	7500	< 0.8	< 5	54	< 0.5	< 0.8	3100	27	8	80	12000	34	2100	180	< 1.5	**90**	**2**	26	24	53
		21667	7900	< 0.8	6	53	< 0.5	< 0.8	3700	28	8	**90**	12000	40	2200	200	< 1.5	**100**	**2**	30	25	60
	10 - 20 cm	21668	7700	< 0.8	13	96	< 0.5	< 0.8	4600	31	12	**150**	13000	70	2200	280	< 1.5	**<u>170</u>**	< 1	36	26	96
		21669	7300	< 0.8	10	65	< 0.5	< 0.8	3700	27	9	**100**	13000	61	2200	220	< 1.5	**120**	< 1	29	26	68
5028114 Metcalfe Ave. (front yard)	0 - 5 cm	19414	7100	< 0.8	< 5	33	< 0.5	< 0.8	3000	25	6	51	11000	12	2300	140	**2.9**	**60**	< 1	22	26	25
		19415	7600	< 0.8	6	36	< 0.5	< 0.8	3300	25	6	46	11000	10	2300	140	< 1.5	**58**	< 1	26	27	24
	5 - 10 cm	19416	8900	< 0.8	< 5	40	< 0.5	< 0.8	3900	25	8	79	13000	23	2600	160	< 1.5	**81**	< 1	32	28	26
		19417	11000	< 0.8	< 5	54	< 0.5	< 0.8	4100	31	6	65	13000	17	2500	170	< 1.5	**77**	< 1	35	30	27
	10 - 20 cm	19418	10000	< 0.8	< 5	44	< 0.5	< 0.8	5500	28	7	63	14000	20	3200	180	< 1.5	**69**	< 1	39	29	23
		19419	10000	< 0.8	< 5	51	< 0.5	< 0.8	5400	30	7	53	13000	16	3200	200	< 1.5	**66**	< 1	37	30	29
5028115 Metcalfe Ave. (front yard)	0 - 5 cm	19408	11000	< 0.8	6	33	< 0.5	< 0.8	3700	28	5	38	14000	9	2300	200	< 1.5	**48**	< 1	42	28	32
		19409	11000	< 0.8	< 5	36	< 0.5	< 0.8	3800	30	5	37	14000	9	2300	220	< 1.5	**47**	< 1	43	30	33
	5 - 10 cm	19410	8200	< 0.8	< 5	33	< 0.5	< 0.8	2600	23	5	42	11000	10	2000	170	< 1.5	**55**	< 1	26	25	24
		19411	8800	< 0.8	< 5	38	< 0.5	< 0.8	3300	26	6	40	12000	12	2000	180	< 1.5	**60**	< 1	36	28	27
	10 - 20 cm	19412	11000	< 0.8	< 5	36	< 0.5	< 0.8	3500	28	5	32	14000	8	2200	210	< 1.5	**45**	< 1	43	30	25
		19413	11000	< 0.8	< 5	35	< 0.5	< 0.8	3500	27	6	35	14000	9	2200	200	< 1.5	**46**	< 1	42	29	24

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028102 Orell St. (front yard)	0 - 5 cm	21712	9600	< 0.8	< 5	37	< 0.5	< 0.8	3900	36	5	49	12000	17	2200	170	< 1.5	**52**	< 1	38	28	35
		21713	11000	< 0.8	6	49	< 0.5	< 0.8	4300	38	6	53	13000	20	2600	180	< 1.5	**55**	< 1	41	31	37
	5 - 10 cm	21714	10000	< 0.8	< 5	33	< 0.5	< 0.8	3600	30	5	31	12000	10	2200	170	< 1.5	37	< 1	39	30	20
		21715	11000	< 0.8	< 5	38	< 0.5	< 0.8	4000	33	5	37	14000	12	2500	190	< 1.5	**44**	< 1	42	32	22
	10 - 20 cm	21716	10000	< 0.8	7	47	< 0.5	< 0.8	3200	28	7	65	13000	16	2200	190	< 1.5	**68**	< 1	36	30	23
		21717	8300	< 0.8	7	35	< 0.5	< 0.8	2800	24	7	66	13000	15	2200	190	< 1.5	**59**	< 1	31	28	23
5028103 Orell St. (back yard)	0 - 5 cm	21706	9000	< 0.8	15	54	< 0.5	< 0.8	4200	29	12	**190**	15000	53	2500	180	< 1.5	**210**	1	28	27	63
		21707	9100	< 0.8	17	46	< 0.5	< 0.8	3900	27	12	**190**	16000	43	2400	180	< 1.5	**200**	1	28	28	64
	5 - 10 cm	21708	8700	< 0.8	8	42	< 0.5	< 0.8	2600	25	7	**93**	13000	23	2100	140	< 1.5	**110**	< 1	23	27	37
		21709	7900	**2.7**	10	57	< 0.5	< 0.8	2700	26	8	**98**	13000	39	2200	160	< 1.5	**110**	< 1	19	25	77
	10 - 20 cm	21710	8100	< 0.8	6	33	< 0.5	< 0.8	2000	24	6	54	12000	19	2200	120	< 1.5	**66**	< 1	17	25	28
		21711	9100	< 0.8	6	46	< 0.5	< 0.8	2600	25	6	65	13000	21	2200	150	< 1.5	**74**	< 1	23	27	35
5028108 Penman Ave. (back yard)	0 - 5 cm	21658	8400	< 0.8	7	38	< 0.5	< 0.8	3900	27	7	85	11000	20	1800	160	< 1.5	**110**	< 1	35	27	43
		21659	7600	< 0.8	7	31	< 0.5	< 0.8	3600	27	7	83	11000	19	1800	150	< 1.5	**110**	< 1	33	26	40
	5 - 10 cm	21660	8800	< 0.8	8	35	< 0.5	< 0.8	2900	22	7	80	11000	14	1800	160	< 1.5	**91**	< 1	30	24	32
		21661	6300	< 0.8	7	18	< 0.5	< 0.8	2300	19	6	67	10000	13	1600	120	< 1.5	**84**	1	22	21	34
	10 - 20 cm	21662	6200	< 0.8	6	18	< 0.5	< 0.8	2000	20	5	53	11000	8	1500	120	< 1.5	**68**	1	19	24	24
		21663	5700	< 0.8	6	17	< 0.5	< 0.8	1800	18	4	49	9200	7	1500	110	< 1.5	**54**	1	17	21	22
5028116 Pilotte Rd. (front yard)	0 - 5 cm	19402	11000	< 0.8	< 5	40	< 0.5	< 0.8	4400	28	5	44	12000	12	2500	190	< 1.5	**48**	< 1	38	28	31
		19403	11000	< 0.8	< 5	43	< 0.5	< 0.8	4600	29	5	48	12000	13	2500	190	< 1.5	**52**	< 1	40	29	46
	5 - 10 cm	19404	8400	< 0.8	< 5	31	< 0.5	< 0.8	2800	25	4	15	12000	4	2300	150	< 1.5	20	< 1	30	28	14
		19405	6800	< 0.8	< 5	23	< 0.5	< 0.8	2000	22	4	17	11000	4	2200	140	< 1.5	24	< 1	22	23	23
	10 - 20 cm	19406	6000	< 0.8	< 5	23	< 0.5	< 0.8	2000	21	4	15	11000	3	2300	120	< 1.5	20	< 1	19	24	13
		19407	5800	< 0.8	< 5	23	< 0.5	< 0.8	1700	20	5	13	10000	3	2300	130	< 1.5	18	< 1	18	23	18
5028109 Sandra St. (front yard)	0 - 5 cm	21652	6400	< 0.8	6	35	< 0.5	< 0.8	4200	19	7	**100**	11000	23	2500	140	< 1.5	**110**	< 1	14	22	32
		21653	8600	< 0.8	10	41	< 0.5	< 0.8	5200	22	7	**98**	12000	24	2700	170	< 1.5	**110**	< 1	26	27	33
	5 - 10 cm	21654	7600	< 0.8	7	31	< 0.5	< 0.8	4000	22	6	65	11000	11	2000	150	< 1.5	**69**	< 1	24	26	22
		21655	10000	< 0.8	8	44	< 0.5	< 0.8	4600	27	5	61	12000	11	2200	170	< 1.5	**65**	< 1	37	29	22
	10 - 20 cm	21656	8000	< 0.8	< 5	31	< 0.5	< 0.8	3700	23	4	31	11000	5	2200	140	< 1.5	34	< 1	33	25	16
		21657	9000	**1.2**	< 5	36	< 0.5	< 0.8	3800	27	4	36	12000	6	2000	170	< 1.5	36	< 1	37	27	17

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028106 Yonge St. (front yard)	0 - 5 cm	21670	8700	< 0.8	< 5	39	< 0.5	< 0.8	4500	26	5	34	12000	9	2300	200	< 1.5	**56**	< 1	37	27	30
		21671	9800	< 0.8	< 5	43	< 0.5	< 0.8	5200	29	6	44	13000	11	2400	220	< 1.5	**59**	< 1	41	29	33
	5 - 10 cm	21672	6800	< 0.8	< 5	27	< 0.5	< 0.8	2800	23	5	27	11000	8	2200	150	< 1.5	37	< 1	25	24	21
		21673	7200	< 0.8	< 5	29	< 0.5	< 0.8	3000	22	5	30	11000	10	2100	150	< 1.5	40	< 1	26	23	22
	10 - 20 cm	21674	6300	< 0.8	< 5	26	< 0.5	< 0.8	2100	21	5	31	10000	10	2100	130	< 1.5	38	< 1	20	23	19
		21675	5200	< 0.8	< 5	22	< 0.5	< 0.8	1700	17	4	27	8000	9	1800	120	< 1.5	30	< 1	16	17	18
Community of Lively																						
5028050 2nd Ave. (front yard)	0 - 5 cm	17714	11000	< 0.8	7	44	< 0.5	< 0.8	4700	30	6	56	14000	17	2700	180	< 1.5	**73**	< 1	39	30	26
		17715	8700	< 0.8	7	36	< 0.5	< 0.8	3400	26	6	64	13000	19	2500	160	2.0	**75**	< 1	23	25	27
	5 - 10 cm	17716	11000	< 0.8	7	48	< 0.5	< 0.8	3700	32	6	57	15000	16	2800	180	< 1.5	**74**	< 1	34	30	26
		17717	10000	< 0.8	7	40	< 0.5	< 0.8	3500	28	5	52	14000	14	2500	170	< 1.5	**71**	< 1	33	29	24
	10 - 20 cm	17718	12000	< 0.8	9	64	< 0.5	< 0.8	4600	33	9	**88**	17000	15	3300	220	< 1.5	**180**	1	34	33	34
		17719	14000	< 0.8	11	74	< 0.5	< 0.8	5000	34	9	**110**	19000	25	3400	290	< 1.5	**190**	1	36	36	41
5028047 3d Ave. (front yard)	0 - 5 cm	17696	12000	< 0.8	10	70	< 0.5	< 0.8	6900	33	13	**120**	17000	20	3600	230	< 1.5	**220**	< 1	42	31	49
		17697	12000	< 0.8	10	74	< 0.5	< 0.8	7100	35	16	**160**	18000	46	3900	250	< 1.5	**270**	< 1	42	32	57
	5 - 10 cm	17698	16000	< 0.8	7	76	< 0.5	< 0.8	5000	39	9	66	18000	13	3900	230	< 1.5	**120**	< 1	40	35	41
		17699	18000	< 0.8	8	90	< 0.5	< 0.8	4700	44	9	**83**	20000	16	4500	250	< 1.5	**130**	< 1	42	39	46
	10 - 20 cm	17700	17000	< 0.8	7	91	< 0.5	< 0.8	6500	43	9	58	20000	11	4700	290	< 1.5	**82**	< 1	44	40	40
		17701	19000	< 0.8	10	100	< 0.5	< 0.8	5900	47	11	**90**	23000	15	5500	310	< 1.5	**120**	< 1	44	43	48
5028044 6th Ave. (back yard)	0 - 5 cm	17678	14000	< 0.8	10	81	< 0.5	< 0.8	5400	39	11	**110**	18000	22	3900	260	< 1.5	**150**	< 1	41	36	46
		17679	12000	< 0.8	9	93	< 0.5	< 0.8	4200	35	10	**86**	17000	14	3600	260	< 1.5	**130**	< 1	35	33	47
	5 - 10 cm	17680	15000	< 0.8	11	93	< 0.5	< 0.8	5300	41	11	**110**	19000	18	4100	280	< 1.5	**150**	< 1	45	39	48
		17681	14000	< 0.8	9	83	< 0.5	< 0.8	5300	39	11	**120**	18000	23	3900	280	< 1.5	**150**	< 1	43	37	55
	10 - 20 cm	17682	17000	< 0.8	8	110	< 0.5	< 0.8	5700	41	10	83	19000	14	4000	270	< 1.5	**120**	< 1	49	40	44
		17683	18000	< 0.8	11	120	< 0.5	< 0.8	5900	46	12	**110**	21000	20	4300	300	< 1.5	**170**	< 1	51	43	56
5028042 8th Ave. (front yard)	0 - 5 cm	17666	11000	< 0.8	6	39	< 0.5	< 0.8	4100	27	6	59	14000	10	2500	210	< 1.5	**80**	< 1	36	27	22
		17667	13000	< 0.8	6	51	< 0.5	< 0.8	5100	32	6	63	16000	11	2900	230	< 1.5	**90**	< 1	43	31	26
	5 - 10 cm	17668	14000	< 0.8	7	61	< 0.5	< 0.8	5700	36	7	73	16000	12	2900	230	< 1.5	**120**	< 1	48	36	29
		17669	13000	< 0.8	8	55	< 0.5	< 0.8	5000	31	7	**93**	16000	13	2900	190	< 1.5	**150**	< 1	42	33	30
	10 - 20 cm	17670	11000	< 0.8	9	62	< 0.5	< 0.8	4400	32	9	**100**	15000	13	2800	190	< 1.5	**180**	< 1	38	35	32
		17671	12000	< 0.8	11	80	< 0.5	< 0.8	5400	36	12	**170**	17000	18	3400	210	< 1.5	**330**	1	40	39	42
5028045 9th Ave. (back yard)	0 - 5 cm	17684	17000	< 0.8	14	130	< 0.5	1.0	12000	55	13	**150**	19000	31	4100	320	1.6	**210**	1	63	44	72
		17685	17000	< 0.8	11	120	< 0.5	**1.2**	11000	70	12	**140**	20000	29	4100	300	< 1.5	**190**	1	60	43	95

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	17686	17000	< 0.8	12	140	< 0.5	1.0	12000	60	12	**160**	20000	31	4100	310	< 1.5	**210**	1	64	47	73
		17687	16000	< 0.8	10	100	< 0.5	< 0.8	10000	58	10	**120**	18000	26	3600	290	< 1.5	**160**	< 1	60	42	63
	10 - 20 cm	17688	14000	< 0.8	13	100	< 0.5	< 0.8	11000	44	10	**140**	18000	25	3500	270	< 1.5	**180**	1	58	40	62
		17689	14000	< 0.8	12	100	< 0.5	< 0.8	10000	44	10	**110**	18000	24	3500	290	< 1.5	**160**	1	60	39	60
5028041 10th Ave. (back yard)	0 - 5 cm	17660	13000	< 0.8	6	47	< 0.5	< 0.8	7000	39	7	62	17000	12	3900	280	< 1.5	**86**	< 1	50	35	32
		17661	13000	< 0.8	7	50	< 0.5	< 0.8	7700	38	7	61	17000	12	4000	280	< 1.5	**87**	< 1	51	35	34
	5 - 10 cm	17662	13000	< 0.8	8	52	< 0.5	< 0.8	6800	39	9	74	18000	15	4100	290	< 1.5	**110**	< 1	45	35	36
		17663	13000	< 0.8	8	54	< 0.5	< 0.8	7300	40	8	74	18000	15	4100	280	< 1.5	**100**	< 1	50	36	36
	10 - 20 cm	17664	15000	< 0.8	12	86	< 0.5	< 0.8	8700	41	12	**130**	20000	31	4200	310	< 1.5	**230**	1	47	39	61
		17665	19000	< 0.8	12	110	< 0.5	< 0.8	9300	46	11	**120**	22000	27	4500	330	< 1.5	**200**	< 1	53	44	63
5028053 Agnes St. (front yard)	0 - 5 cm	17852	9600	< 0.8	5	38	< 0.5	< 0.8	3700	28	8	67	13000	13	2600	210	< 1.5	**90**	1	33	28	33
		17853	10000	< 0.8	< 5	42	< 0.5	< 0.8	3800	30	9	74	14000	14	2700	230	< 1.5	**92**	1	35	30	37
	5 - 10 cm	17854	10000	< 0.8	5	47	< 0.5	< 0.8	4000	32	10	75	16000	14	3400	280	< 1.5	**93**	1	34	32	40
		17855	8900	< 0.8	6	39	< 0.5	< 0.8	3300	30	10	65	15000	12	3200	240	< 1.5	**78**	1	28	30	38
	10 - 20 cm	17856	8900	< 0.8	6	38	< 0.5	< 0.8	3400	30	10	72	16000	12	3600	250	< 1.5	**84**	1	28	31	38
		17857	6900	< 0.8	5	30	< 0.5	< 0.8	2700	25	10	54	15000	8	3600	220	< 1.5	**53**	1	19	29	32
5028043 Birch St. (back yard)	0 - 5 cm	17672	9900	< 0.8	11	52	< 0.5	< 0.8	4900	32	10	**130**	18000	21	3100	230	< 1.5	**140**	1	36	36	42
		17673	9100	< 0.8	10	45	< 0.5	< 0.8	4200	30	8	**110**	17000	20	2900	210	< 1.5	**120**	< 1	32	35	38
	5 - 10 cm	17674	8800	< 0.8	10	40	< 0.5	< 0.8	4100	24	8	**88**	17000	13	2800	210	< 1.5	**98**	< 1	30	35	28
		17675	10000	< 0.8	10	45	< 0.5	< 0.8	4300	25	9	**110**	18000	15	2900	220	< 1.5	**120**	< 1	33	36	31
	10 - 20 cm	17676	11000	< 0.8	9	55	< 0.5	< 0.8	4200	26	9	**90**	17000	15	2900	240	< 1.5	**120**	< 1	35	36	30
		17677	12000	< 0.8	8	46	< 0.5	< 0.8	4200	26	9	67	18000	10	2900	210	< 1.5	**78**	< 1	34	36	28
5028056 Field St. (front yard)	0 - 5 cm	17882	11000	< 0.8	< 5	53	< 0.5	< 0.8	6000	33	5	38	12000	11	2900	170	< 1.5	**58**	< 1	46	30	22
		17883	9600	< 0.8	< 5	38	< 0.5	< 0.8	5100	27	4	37	11000	10	2600	150	< 1.5	**51**	< 1	42	27	31
	5 - 10 cm	17884	11000	< 0.8	< 5	52	< 0.5	< 0.8	4500	32	5	33	13000	7	3200	180	< 1.5	43	< 1	39	31	21
		17885	8600	< 0.8	< 5	39	< 0.5	< 0.8	3700	27	5	25	12000	6	2700	150	< 1.5	34	< 1	32	27	17
	10 - 20 cm	17886	11000	< 0.8	< 5	64	< 0.5	< 0.8	4800	36	6	27	16000	5	4000	220	< 1.5	35	< 1	37	34	23
		17887	13000	< 0.8	< 5	71	< 0.5	< 0.8	5100	38	7	30	17000	7	4300	230	< 1.5	37	< 1	40	35	25

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028049 Irene Cr. (back yard)	0 - 5 cm	17708	17000	< 0.8	5	89	< 0.5	< 0.8	6600	44	7	48	20000	12	4700	300	< 1.5	**53**	< 1	55	44	35
		17709	14000	< 0.8	7	73	< 0.5	< 0.8	5900	37	8	57	21000	10	4700	300	< 1.5	**53**	< 1	44	44	35
	5 - 10 cm	17710	15000	< 0.8	8	76	< 0.5	< 0.8	5000	38	9	47	23000	9	5000	320	< 1.5	**46**	< 1	42	45	32
		17711	13000	< 0.8	8	65	< 0.5	< 0.8	4200	35	8	42	21000	8	4600	280	< 1.5	35	< 1	35	42	31
	10 - 20 cm	17712	15000	< 0.8	9	86	< 0.5	< 0.8	5700	42	10	44	24000	8	5800	350	< 1.5	41	< 1	46	46	35
		17713	15000	< 0.8	7	84	< 0.5	< 0.8	5400	40	9	40	23000	7	5600	330	< 1.5	37	< 1	45	47	33
5028052 Jacobson Dr. (back yard)	0 - 5 cm	17726	16000	< 0.8	17	79	< 0.5	< 0.8	5800	47	8	67	19000	10	4400	290	< 1.5	**62**	< 1	49	41	37
		17727	11000	**1.2**	9	48	< 0.5	< 0.8	4000	33	7	53	15000	9	3400	240	< 1.5	**62**	< 1	38	32	34
	5 - 10 cm	17728	13000	< 0.8	11	70	< 0.5	< 0.8	4700	40	9	63	19000	10	4400	310	< 1.5	**63**	< 1	46	40	40
		17729	10000	< 0.8	10	48	< 0.5	< 0.8	3700	32	7	46	16000	8	3600	240	< 1.5	**48**	< 1	36	31	34
	10 - 20 cm	17730	9000	< 0.8	9	38	< 0.5	< 0.8	3100	27	6	38	15000	6	3000	190	< 1.5	37	< 1	33	29	30
		17731	10000	< 0.8	9	47	< 0.5	< 0.8	3200	29	7	41	16000	8	3300	220	< 1.5	40	< 1	34	31	30
5037463 John St. (front yard)	0-5 cm	15366	11000	<0.8	<5	47	<0.5	<0.8	5700	32	7	51	15000	11	3200	220	<1.5	**75**	<1	41	32	33
		15367	11000	<0.8	<5	48	<0.5	<0.8	5900	32	7	51	15000	10	3000	220	<1.5	**72**	<1	39	32	34
	5-10 cm	15368	9400	<0.8	<5	46	<0.5	<0.8	5300	29	8	72	14000	14	2600	200	<1.5	**110**	<1	36	29	35
		15369	7800	<0.8	<5	40	<0.5	<0.8	4200	26	7	60	13000	13	2600	170	<1.5	**86**	<1	28	25	34
5037464 John St. (back yard)	0-5 cm	15360	8900	<0.8	<5	54	<0.5	<0.8	5400	28	8	**91**	16000	22	3500	250	<1.5	**89**	<1	34	32	52
		15361	9000	<0.8	<5	59	<0.5	<0.8	5500	28	9	**96**	16000	25	3500	260	<1.5	**100**	<1	35	33	56
	5-10 cm	15362	8000	<0.8	<5	44	<0.5	<0.8	4200	26	7	62	15000	14	3200	210	<1.5	**56**	<1	28	30	38
		15363	8200	<0.8	<5	49	<0.5	<0.8	4700	25	7	61	15000	19	3400	220	<1.5	**60**	<1	29	31	45
	10-20 cm	15364	8500	<0.8	<5	44	<0.5	<0.8	4300	25	7	67	16000	14	3200	210	<1.5	**56**	<1	33	32	34
		15365	8200	<0.8	<5	46	<0.5	<0.8	4600	26	7	48	15000	19	3300	210	<1.5	43	<1	32	32	38
5028058 Laura Ave. (back yard)	0 - 5 cm	17876	11000	< 0.8	< 5	52	< 0.5	< 0.8	6800	32	6	48	14000	10	3000	240	< 1.5	**77**	< 1	41	32	32
		17877	12000	< 0.8	5	57	< 0.5	< 0.8	7400	34	6	46	14000	10	3100	250	< 1.5	**73**	< 1	44	32	32
	5 - 10 cm	17878	13000	< 0.8	< 5	60	< 0.5	< 0.8	5900	36	6	31	15000	8	3000	230	< 1.5	**54**	< 1	47	33	27
		17879	16000	< 0.8	< 5	89	< 0.5	< 0.8	6000	46	7	41	18000	9	3900	270	< 1.5	**62**	< 1	48	39	33
	10 - 20 cm	17880	19000	< 0.8	6	110	< 0.5	< 0.8	5300	52	8	44	19000	9	4500	270	< 1.5	**62**	< 1	50	42	37
		17881	15000	< 0.8	8	84	< 0.5	< 0.8	4800	49	7	54	18000	10	4100	250	< 1.5	**73**	< 1	47	37	35

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028046 Margaret Ave. (front yard)	0 - 5 cm	17690	14000	< 0.8	10	82	< 0.5	< 0.8	6200	40	11	**110**	21000	18	4400	310	< 1.5	**190**	1	46	42	48
		17691	13000	< 0.8	9	80	< 0.5	< 0.8	5800	40	11	**100**	20000	17	4400	310	< 1.5	**160**	< 1	46	42	43
	5 - 10 cm	17692	15000	< 0.8	10	85	< 0.5	< 0.8	6300	39	11	**96**	22000	16	4700	320	2.3	**170**	< 1	49	44	43
		17693	16000	< 0.8	8	98	< 0.5	< 0.8	6600	42	10	67	23000	13	5600	320	< 1.5	**120**	< 1	48	47	40
	10 - 20 cm	17694	22000	< 0.8	7	140	< 0.5	< 0.8	8400	54	12	54	30000	10	7500	430	< 1.5	**73**	< 1	60	62	46
		17695	21000	< 0.8	7	130	< 0.5	< 0.8	7200	53	11	48	27000	9	7200	390	< 1.5	**62**	< 1	57	56	44
5028055 Patricia St. (front yard)	0 - 5 cm	17864	11000	< 0.8	< 5	39	< 0.5	< 0.8	5200	33	6	25	13000	7	2500	180	< 1.5	42	< 1	48	31	18
		17865	9700	< 0.8	< 5	32	< 0.5	< 0.8	4200	28	5	24	12000	7	2300	160	< 1.5	43	< 1	38	28	18
	5 - 10 cm	17866	9800	< 0.8	< 5	36	< 0.5	< 0.8	3800	29	5	20	12000	6	2500	160	< 1.5	36	< 1	35	28	16
		17867	9200	< 0.8	< 5	31	< 0.5	< 0.8	3600	27	5	18	11000	6	2300	150	< 1.5	33	< 1	34	26	15
	10 - 20 cm	17868	20000	< 0.8	< 5	150	< 0.5	< 0.8	7200	64	12	44	27000	10	8400	390	< 1.5	61	< 1	52	51	45
		17869	12000	< 0.8	< 5	57	< 0.5	< 0.8	4200	36	7	26	15000	7	3300	200	< 1.5	43	< 1	41	33	22
5028057 Polvi Ave. (back yard)	0 - 5 cm	17870	13000	< 0.8	< 5	82	< 0.5	< 0.8	5100	37	10	**90**	18000	16	4000	290	< 1.5	**130**	< 1	42	37	46
		17871	12000	< 0.8	< 5	67	< 0.5	< 0.8	4100	35	9	76	17000	13	3800	250	< 1.5	**98**	< 1	36	34	42
	5 - 10 cm	17872	11000	1.0	< 5	59	< 0.5	< 0.8	4000	31	7	49	16000	16	3600	220	< 1.5	**60**	< 1	35	34	32
		17873	12000	< 0.8	< 5	66	< 0.5	< 0.8	3900	36	8	55	17000	9	3800	230	< 1.5	**65**	< 1	35	34	37
	10 - 20 cm	17874	8600	< 0.8	< 5	43	< 0.5	< 0.8	3000	26	6	36	14000	6	3200	180	< 1.5	40	< 1	26	28	27
		17875	13000	< 0.8	< 5	78	< 0.5	< 0.8	4000	39	8	50	17000	9	3900	240	< 1.5	**63**	< 1	40	36	35
5028051 Ronald Cr. (front yard)	0 - 5 cm	17720	8000	< 0.8	5	28	< 0.5	< 0.8	3700	23	6	61	13000	12	2200	200	< 1.5	**77**	< 1	29	26	27
		17721	11000	< 0.8	5	42	< 0.5	< 0.8	5900	30	6	69	15000	14	2300	250	< 1.5	**82**	< 1	45	31	35
	5 - 10 cm	17722	10000	< 0.8	< 5	37	< 0.5	< 0.8	4900	27	5	50	14000	10	2200	250	< 1.5	**63**	< 1	46	31	24
		17723	10000	< 0.8	6	36	< 0.5	< 0.8	5400	29	5	52	14000	9	2100	250	< 1.5	**57**	< 1	47	30	26
	10 - 20 cm	17724	9200	< 0.8	< 5	30	< 0.5	< 0.8	4200	25	4	35	12000	7	1800	250	< 1.5	42	1	42	27	22
		17725	11000	< 0.8	< 5	37	< 0.5	< 0.8	4700	27	4	34	13000	7	1800	270	< 1.5	39	< 1	47	29	26
5037466 Selma St. (front yard)	0-5 cm	15391	13000	<0.8	8	76	<0.5	<0.8	5700	40	14	**150**	21000	24	4500	380	<1.5	**180**	<1	43	40	55
		15392	15000	**1.2**	8	84	<0.5	<0.8	5900	45	16	**210**	25000	34	5100	380	<1.5	**270**	**2**	44	46	66
	5-10 cm	15393	13000	<0.8	7	75	<0.5	<0.8	6200	40	12	**110**	22000	19	5400	330	<1.5	**110**	1	39	41	48
		15394	13000	<0.8	8	69	<0.5	<0.8	5700	42	13	**160**	20000	18	4600	350	<1.5	**140**	1	41	38	60
	10-20 cm	15395	17000	<0.8	10	71	<0.5	<0.8	4600	42	13	**190**	22000	20	4300	280	<1.5	**240**	**2**	47	43	77
		15371	22000	<0.8	8	130	<0.5	<0.8	10000	50	9	**120**	23000	31	6200	290	<1.5	**140**	<1	49	42	97

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037460 Suzanne St. (front yard)	0-5 cm	15331	16000	<0.8	9	87	<0.5	<0.8	5100	54	11	**140**	25000	46	4700	340	<1.5	**180**	<1	38	47	59
		15332	16000	<0.8	10	83	<0.5	<0.8	5100	51	11	**140**	24000	55	4500	340	<1.5	**180**	<1	36	44	66
	5-10 cm	15333	16000	<0.8	10	75	<0.5	<0.8	4000	39	10	**140**	24000	32	4300	330	<1.5	**150**	<1	36	47	47
		15334	15000	<0.8	11	74	<0.5	<0.8	3500	35	9	**96**	23000	32	3800	380	<1.5	**110**	<1	33	45	45
	10-20 cm	15335	15000	0.8	10	68	<0.5	<0.8	3400	41	11	**140**	24000	42	4100	320	<1.5	**170**	<1	28	44	54
		15336	16000	<0.8	10	78	<0.5	<0.8	3700	35	9	**110**	23000	31	3600	370	<1.5	**120**	<1	36	46	64
5028054 Westview Cr. (front yard)	0 - 5 cm	17858	10000	< 0.8	6	55	< 0.5	< 0.8	4200	40	12	**130**	18000	29	3500	220	< 1.5	**160**	**2**	30	33	53
		17859	10000	< 0.8	6	55	< 0.5	1.0	4100	39	13	**140**	18000	36	3300	220	< 1.5	**180**	< 1	32	33	65
	5 - 10 cm	17860	12000	< 0.8	6	55	< 0.5	< 0.8	5100	33	10	68	17000	13	3200	230	< 1.5	**80**	< 1	39	38	36
		17861	13000	< 0.8	5	55	< 0.5	< 0.8	5300	33	9	64	18000	13	3400	240	< 1.5	**72**	< 1	40	41	37
	10 - 20 cm	17862	13000	< 0.8	5	61	< 0.5	< 0.8	5000	32	9	46	17000	8	3400	240	< 1.5	**49**	< 1	39	38	30
		17863	11000	< 0.8	< 5	42	< 0.5	< 0.8	4200	29	9	43	16000	7	3100	230	< 1.5	**47**	< 1	34	37	29
5028048 Woodland Ave. (front yard)	0 - 5 cm	17702	15000	< 0.8	6	72	< 0.5	< 0.8	6700	36	9	79	19000	18	4300	250	< 1.5	**81**	< 1	41	37	43
		17703	14000	< 0.8	6	68	< 0.5	< 0.8	6800	36	9	78	17000	19	4100	240	< 1.5	**81**	< 1	48	36	40
	5 - 10 cm	17704	18000	< 0.8	7	100	< 0.5	< 0.8	6500	43	9	53	23000	10	5300	350	2.0	**51**	< 1	51	50	35
		17705	15000	< 0.8	5	68	< 0.5	< 0.8	5700	36	7	32	20000	6	4400	290	< 1.5	29	< 1	49	42	26
	10 - 20 cm	17706	17000	< 0.8	6	87	< 0.5	< 0.8	7000	43	7	68	20000	14	4400	290	< 1.5	**57**	< 1	54	43	37
		17707	17000	< 0.8	6	86	< 0.5	< 0.8	6600	45	7	47	20000	11	4600	300	< 1.5	**49**	< 1	53	43	35
Community of Skead																						
5028118 Bowlands Bay Rd. (back yard)	0 - 5 cm	19460	12000	< 0.8	6	68	< 0.5	< 0.8	3400	40	8	55	15000	35	2800	180	< 1.5	**59**	< 1	30	29	45
		19461	12000	< 0.8	7	68	< 0.5	< 0.8	3200	47	8	57	16000	40	3000	170	< 1.5	**58**	< 1	30	31	44
	5 - 10 cm	19462	9300	< 0.8	< 5	42	< 0.5	< 0.8	2000	27	6	29	13000	9	2400	160	< 1.5	38	< 1	22	27	29
		19463	10000	< 0.8	< 5	48	< 0.5	< 0.8	2500	29	7	42	15000	19	2800	170	< 1.5	43	< 1	26	30	33
	10 - 20 cm	19464	8200	< 0.8	5	43	< 0.5	< 0.8	2100	24	7	28	13000	16	2800	160	< 1.5	33	< 1	24	25	29
		19465	10000	< 0.8	7	48	< 0.5	< 0.8	2500	28	8	47	16000	23	3500	180	< 1.5	**49**	< 1	25	30	34

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028120 Canton Rd. (front yard)	0 - 5 cm	19450	8600	< 0.8	< 5	26	< 0.5	< 0.8	3300	23	5	21	11000	8	2200	140	< 1.5	36	< 1	29	24	26
		19451	8800	< 0.8	< 5	24	< 0.5	< 0.8	2900	23	5	20	12000	7	2200	130	< 1.5	32	< 1	28	23	18
	5 - 10 cm	19452	8000	< 0.8	< 5	30	< 0.5	< 0.8	2500	19	5	22	11000	7	2300	130	< 1.5	32	< 1	21	22	22
		19453	6800	< 0.8	< 5	29	< 0.5	< 0.8	2000	17	5	26	11000	8	2100	120	< 1.5	36	< 1	18	21	19
	10 - 20 cm	19454	6000	< 0.8	< 5	27	< 0.5	< 0.8	1500	15	4	14	9400	3	2200	140	< 1.5	19	< 1	15	17	14
		19455	6300	< 0.8	< 5	27	< 0.5	< 0.8	1600	16	4	12	10000	3	2200	110	< 1.5	18	< 1	17	19	13
5028123 Cottage Lane (front yard)	0 - 5 cm	19432	7900	< 0.8	< 5	43	< 0.5	< 0.8	1700	19	5	28	13000	7	1800	210	< 1.5	35	< 1	22	27	26
		19433	8400	< 0.8	< 5	50	< 0.5	< 0.8	1800	20	5	28	13000	8	1800	280	< 1.5	34	< 1	24	28	30
	5 - 10 cm	19434	8700	< 0.8	< 5	46	< 0.5	< 0.8	1600	21	5	13	13000	4	2100	190	< 1.5	24	< 1	20	28	27
		19435	7500	< 0.8	< 5	40	< 0.5	< 0.8	1200	20	5	11	13000	4	2100	220	< 1.5	23	< 1	13	27	26
	10 - 20 cm	19436	8600	< 0.8	< 5	49	< 0.5	< 0.8	1400	22	5	6	13000	3	2200	170	< 1.5	21	< 1	19	28	23
		19437	8800	< 0.8	< 5	41	< 0.5	< 0.8	1700	21	5	6	14000	3	2200	170	< 1.5	21	< 1	20	28	33
5028121 Kevin Dr. (back yard)	0 - 5 cm	19444	7500	< 0.8	< 5	30	< 0.5	< 0.8	2700	22	5	34	12000	8	2100	200	< 1.5	41	< 1	22	24	23
		19445	9000	< 0.8	< 5	37	< 0.5	< 0.8	3700	25	6	44	12000	9	2300	230	< 1.5	**48**	< 1	29	26	26
	5 - 10 cm	19446	6900	< 0.8	< 5	31	< 0.5	< 0.8	2100	21	5	17	12000	4	2300	160	< 1.5	24	< 1	20	22	19
		19447	9200	< 0.8	< 5	43	< 0.5	< 0.8	3000	22	5	36	13000	9	2100	220	< 1.5	39	< 1	26	26	26
	10 - 20 cm	19448	6300	< 0.8	< 5	28	< 0.5	< 0.8	1700	17	5	11	10000	3	2500	130	< 1.5	16	< 1	18	19	13
		19449	9200	< 0.8	< 5	40	< 0.5	< 0.8	2200	23	5	19	14000	5	2400	170	< 1.5	27	< 1	24	26	25
5028122 Marine Landing (front yard)	0 - 5 cm	19438	8000	< 0.8	5	38	< 0.5	< 0.8	2000	23	6	44	14000	30	2300	170	< 1.5	**45**	< 1	22	30	36
		19439	12000	< 0.8	5	71	< 0.5	< 0.8	2800	30	7	48	16000	35	2700	240	< 1.5	**51**	< 1	29	35	49
	5 - 10 cm	19440	8700	< 0.8	< 5	48	< 0.5	< 0.8	2100	23	6	34	14000	29	2500	210	< 1.5	35	< 1	24	30	34
		19441	12000	< 0.8	< 5	74	< 0.5	< 0.8	2800	30	6	39	16000	22	2900	240	< 1.5	42	< 1	31	34	43
	10 - 20 cm	19442	11000	< 0.8	5	70	< 0.5	< 0.8	2400	26	6	43	15000	26	2500	280	< 1.5	**45**	< 1	30	35	50
		19443	11000	< 0.8	< 5	63	< 0.5	< 0.8	2800	28	6	27	16000	20	2800	220	< 1.5	29	< 1	32	33	32
5028119 MacLennan Dr. (front yard)	0 - 5 cm	19456	11000	< 0.8	< 5	53	< 0.5	< 0.8	3100	27	7	36	14000	11	2600	210	< 1.5	**44**	< 1	33	28	27
		19457	9000	< 0.8	< 5	39	< 0.5	< 0.8	2500	23	7	42	13000	12	2300	200	< 1.5	**46**	< 1	28	26	25
	5 - 10 cm	19458	10000	< 0.8	< 5	48	< 0.5	< 0.8	2100	24	5	25	13000	8	2200	160	< 1.5	30	< 1	29	28	21
		19459	9900	< 0.8	< 5	54	< 0.5	< 0.8	2200	22	5	28	13000	7	2300	170	< 1.5	29	< 1	27	26	18

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Sudbury (East)																						
5037914 Autumnwood Cr. (front yard)	0 - 5 cm	17556	10000	< 0.8	< 5	42	< 0.5	< 0.8	4000	30	6	37	13000	8	2900	170	< 1.5	**48**	< 1	36	29	22
		17557	11000	< 0.8	< 5	73	< 0.5	< 0.8	4300	38	7	24	16000	5	3900	260	< 1.5	31	< 1	35	35	18
	5 - 10 cm	17558	11000	< 0.8	< 5	63	< 0.5	< 0.8	4500	37	7	25	16000	5	3800	240	< 1.5	35	< 1	35	34	18
		17559	9900	< 0.8	< 5	43	< 0.5	< 0.8	4400	30	7	39	13000	10	2800	180	< 1.5	**59**	< 1	40	29	24
	10 - 20 cm	17560	9600	< 0.8	< 5	60	< 0.5	< 0.8	6500	34	7	30	15000	6	4000	220	< 1.5	39	< 1	31	31	21
		17561	9900	< 0.8	< 5	63	< 0.5	< 0.8	5400	36	7	23	16000	5	4100	230	< 1.5	32	< 1	31	33	18
5037925 Avalon Rd. (back yard)	0 - 5 cm	17630	5700	< 0.8	6	27	< 0.5	< 0.8	4700	20	9	**130**	10000	22	2200	130	< 1.5	<u>**200**</u>	< 1	24	18	32
		17631	5900	< 0.8	6	29	< 0.5	< 0.8	3900	20	9	**120**	11000	24	1800	130	< 1.5	<u>**180**</u>	< 1	23	20	30
	5 - 10 cm	17632	5200	< 0.8	< 5	17	< 0.5	< 0.8	2200	18	4	44	8600	6	1600	110	< 1.5	**63**	< 1	18	17	15
		17633	5400	< 0.8	< 5	19	< 0.5	< 0.8	2100	17	5	52	8700	8	1600	110	< 1.5	**64**	< 1	18	17	16
	10 - 20 cm	17634	5400	< 0.8	< 5	19	< 0.5	< 0.8	2100	18	4	33	8700	5	1600	110	< 1.5	**48**	< 1	19	18	13
		17635	5900	< 0.8	< 5	24	< 0.5	< 0.8	2400	18	5	41	8900	8	1600	120	< 1.5	**59**	< 1	22	19	16
5028029 Bancroft Dr. (front yard)	0 - 5 cm	21047	12000	< 0.8	10	55	< 0.5	< 0.8	4300	30	8	**100**	15000	30	2400	190	< 1.5	**89**	1	39	31	46
		21048	12000	< 0.8	10	41	< 0.5	< 0.8	3700	26	8	**100**	15000	24	2100	180	< 1.5	**90**	< 1	35	29	38
	5 - 10 cm	21049	14000	< 0.8	14	54	< 0.5	< 0.8	3100	29	6	**94**	16000	15	2000	160	< 1.5	**60**	< 1	34	33	26
		21050	13000	< 0.8	13	46	< 0.5	< 0.8	3000	27	6	**87**	16000	14	1900	160	< 1.5	**56**	< 1	33	33	23
	10 - 20 cm	21051	12000	**1.3**	13	39	< 0.5	< 0.8	2400	25	6	81	15000	13	1900	160	< 1.5	**48**	< 1	27	31	21
		21052	11000	< 0.8	17	39	< 0.5	< 0.8	2000	24	6	83	14000	13	1900	150	< 1.5	**54**	< 1	23	30	22
5037920 Camelot Dr. (back yard)	0 - 5 cm	17600	11000	< 0.8	< 5	91	< 0.5	< 0.8	6000	33	8	78	15000	21	3300	340	< 1.5	**97**	1	41	29	55
		17601	9200	< 0.8	6	67	< 0.5	< 0.8	4800	29	8	80	14000	25	2900	250	< 1.5	**100**	< 1	32	27	74
	5 - 10 cm	17602	11000	< 0.8	6	86	< 0.5	< 0.8	4800	33	7	59	15000	13	3400	280	< 1.5	**75**	< 1	38	31	29
		17603	9300	< 0.8	< 5	48	< 0.5	< 0.8	4100	26	6	53	13000	12	2500	200	< 1.5	**64**	< 1	31	26	56
	10 - 20 cm	17604	14000	0.9	< 5	110	< 0.5	< 0.8	6400	37	7	56	15000	17	3500	340	< 1.5	**74**	< 1	49	33	43
		17605	14000	< 0.8	< 5	100	< 0.5	< 0.8	5200	37	7	54	16000	11	3500	270	< 1.5	**72**	< 1	44	35	41
5037915 Cherrywood Cr. (front yard)	0 - 5 cm	17562	11000	< 0.8	< 5	51	< 0.5	< 0.8	5700	37	7	49	15000	11	3600	250	< 1.5	**65**	< 1	45	34	28
		17563	14000	< 0.8	5	68	< 0.5	< 0.8	6800	44	8	55	17000	13	3900	290	< 1.5	**79**	< 1	52	38	39
	5 - 10 cm	17564	15000	< 0.8	< 5	77	< 0.5	< 0.8	6400	45	7	41	17000	10	4100	270	< 1.5	**54**	< 1	51	39	27
		17565	15000	< 0.8	< 5	74	< 0.5	< 0.8	6500	43	7	43	17000	9	4000	270	< 1.5	**54**	< 1	52	39	28
	10 - 20 cm	17566	13000	< 0.8	< 5	74	< 0.5	< 0.8	5400	39	8	48	16000	10	3900	240	< 1.5	**63**	< 1	45	37	23
		17567	14000	< 0.8	< 5	74	< 0.5	< 0.8	5300	38	7	52	16000	9	3700	240	1.6	**59**	< 1	47	36	24

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028028 Clearview Ave. (back yard)	0 - 5 cm	17568	11000	< 0.8	6	55	< 0.5	< 0.8	6600	31	9	**90**	14000	26	3300	200	< 1.5	**110**	< 1	43	30	37
		17569	9400	< 0.8	9	51	< 0.5	< 0.8	6300	30	9	**100**	14000	24	3500	190	< 1.5	**110**	< 1	34	29	51
	5 - 10 cm	17570	9100	< 0.8	6	50	< 0.5	< 0.8	4600	30	9	**95**	15000	29	3200	190	< 1.5	**110**	< 1	29	29	37
		17571	8600	< 0.8	7	47	< 0.5	< 0.8	4600	29	9	**91**	15000	26	3200	180	< 1.5	**98**	< 1	27	29	43
	10 - 20 cm	17572	8900	< 0.8	6	53	< 0.5	< 0.8	4500	29	9	**93**	15000	24	3500	200	< 1.5	**96**	< 1	28	28	35
		17573	8900	< 0.8	7	46	< 0.5	< 0.8	4200	30	9	75	15000	18	3200	180	< 1.5	**90**	< 1	28	31	44
5028031 Dale St. (back yard)	0 - 5 cm	21060	11000	< 0.8	6	55	< 0.5	< 0.8	3900	32	8	**96**	16000	40	2600	200	< 1.5	**110**	< 1	38	32	71
		21061	10000	< 0.8	< 5	46	< 0.5	< 0.8	3500	29	7	78	15000	17	2500	180	< 1.5	**87**	< 1	35	30	42
	5 - 10 cm	21062	11000	1.0	7	52	< 0.5	< 0.8	3200	29	8	**120**	16000	32	2600	160	< 1.5	**110**	< 1	35	32	49
		21063	11000	< 0.8	7	47	< 0.5	< 0.8	3300	29	8	**110**	17000	20	2400	170	< 1.5	**110**	< 1	36	32	40
	10 - 20 cm	21064	8000	< 0.8	9	42	< 0.5	< 0.8	2600	25	8	**140**	15000	28	2200	140	< 1.5	**140**	1	26	28	37
		21065	7800	< 0.8	5	33	< 0.5	< 0.8	2800	25	6	67	14000	11	2200	150	< 1.5	**79**	< 1	28	30	26
5037912 Darby St. (front yard)	0 - 5 cm	17532	10000	< 0.8	6	57	< 0.5	< 0.8	4800	35	8	55	15000	12	3500	240	< 1.5	**72**	< 1	35	33	30
		17533	9700	< 0.8	5	54	< 0.5	< 0.8	4900	34	8	56	15000	11	3400	230	< 1.5	**71**	< 1	36	32	30
	5 - 10 cm	17534	9900	< 0.8	< 5	53	< 0.5	< 0.8	4400	36	8	44	16000	9	3700	230	< 1.5	**62**	< 1	33	32	26
		17535	11000	< 0.8	6	56	< 0.5	< 0.8	5100	37	8	51	16000	10	3900	220	< 1.5	**61**	< 1	38	33	26
	10 - 20 cm	17536	11000	< 0.8	6	59	< 0.5	< 0.8	4200	34	8	43	17000	7	3900	210	< 1.5	**52**	< 1	36	32	22
		17537	11000	< 0.8	7	53	< 0.5	< 0.8	4200	33	8	45	16000	7	3600	200	< 1.5	**55**	< 1	36	33	20
5037913 Dorsett Dr. (front yard)	0 - 5 cm	17550	13000	**2.5**	6	59	< 0.5	< 0.8	7100	41	8	59	16000	**170**	3700	240	< 1.5	**81**	< 1	50	36	39
		17551	12000	**2.3**	5	48	< 0.5	< 0.8	6500	37	7	58	15000	**140**	3500	220	< 1.5	**80**	< 1	45	33	34
	5 - 10 cm	17552	11000	**3.3**	6	43	< 0.5	< 0.8	5900	34	7	54	14000	**220**	3300	210	< 1.5	**75**	< 1	39	32	30
		17553	9600	**6.5**	7	40	< 0.5	< 0.8	4600	31	7	55	13000	**310**	3100	190	< 1.5	**68**	< 1	25	27	28
	10 - 20 cm	17554	12000	**2.8**	7	52	< 0.5	< 0.8	5100	35	8	57	16000	**100**	3500	220	< 1.5	**75**	< 1	35	33	32
		17555	12000	**3.9**	7	53	< 0.5	< 0.8	5800	35	8	57	16000	**150**	3600	220	1.8	**72**	< 1	39	34	31
5028027 Dundas St. (back yard)	0 - 5 cm	17654	8300	< 0.8	10	85	< 0.5	< 0.8	6500	25	9	**150**	14000	35	2700	390	< 1.5	**170**	< 1	51	23	50
		17655	7700	< 0.8	10	55	< 0.5	< 0.8	5100	23	8	**110**	13000	32	2500	220	< 1.5	**160**	< 1	38	22	39
	5 - 10 cm	17656	7400	< 0.8	8	39	< 0.5	< 0.8	3600	23	6	64	12000	15	2400	190	2.1	**77**	< 1	34	23	21
		17657	7500	< 0.8	7	34	< 0.5	< 0.8	3200	23	5	64	12000	13	2300	160	< 1.5	**70**	< 1	31	22	18
	10 - 20 cm	17658	7600	< 0.8	< 5	38	< 0.5	< 0.8	3500	23	5	46	11000	10	2400	170	< 1.5	**46**	< 1	33	23	31
		17659	7700	< 0.8	< 5	33	< 0.5	< 0.8	3000	23	5	36	11000	6	2300	160	< 1.5	42	< 1	30	24	16

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037909 Estelle St. (back yard)	0 - 5 cm	17538	10000	< 0.8	**18**	64	< 0.5	< 0.8	3500	31	12	**230**	17000	36	2600	180	< 1.5	**220**	**2**	32	30	39
		17539	11000	< 0.8	14	62	< 0.5	< 0.8	4000	43	11	**180**	17000	30	2600	190	< 1.5	**190**	1	35	30	45
	5 - 10 cm	17540	12000	< 0.8	12	62	< 0.5	< 0.8	2700	29	8	**150**	16000	18	2200	160	< 1.5	**110**	< 1	34	30	37
		17541	11000	< 0.8	12	53	< 0.5	< 0.8	2700	29	9	**140**	16000	17	2600	150	< 1.5	**130**	< 1	29	29	29
	10 - 20 cm	17542	11000	< 0.8	9	51	< 0.5	< 0.8	2600	26	7	**89**	14000	11	2100	150	< 1.5	**73**	< 1	34	29	33
		17543	8200	< 0.8	11	37	< 0.5	< 0.8	2200	25	6	68	13000	10	2400	120	< 1.5	**78**	< 1	23	26	19
5037911 Eugene St. (back yard)	0 - 5 cm	17526	10000	< 0.8	< 5	48	< 0.5	< 0.8	5300	28	6	53	13000	13	2900	200	< 1.5	**68**	< 1	38	29	29
		17527	12000	< 0.8	< 5	62	< 0.5	< 0.8	5100	32	6	58	13000	13	2900	210	< 1.5	**72**	< 1	39	32	41
	5 - 10 cm	17528	9900	< 0.8	< 5	48	< 0.5	< 0.8	4600	27	6	51	13000	11	2800	200	< 1.5	**64**	< 1	36	29	27
		17529	11000	< 0.8	< 5	59	< 0.5	< 0.8	5700	31	6	58	13000	13	3000	210	< 1.5	**74**	< 1	40	31	33
	10 - 20 cm	17530	5300	< 0.8	< 5	25	< 0.5	< 0.8	2300	21	4	21	9500	4	2100	130	< 1.5	38	< 1	19	21	13
		17531	5200	< 0.8	< 5	23	< 0.5	< 0.8	2400	20	4	18	9300	4	2100	130	< 1.5	36	< 1	20	22	12
5028026 Ferndale Ave. (front yard)	0 - 5 cm	17648	19000	< 0.8	6	110	< 0.5	< 0.8	6500	45	12	**150**	22000	56	3700	310	< 1.5	**150**	1	50	41	110
		17649	12000	< 0.8	8	85	< 0.5	< 0.8	5200	42	11	**140**	17000	53	3500	270	< 1.5	**160**	1	38	34	110
	5 - 10 cm	17650	13000	< 0.8	7	90	< 0.5	< 0.8	5400	41	11	**140**	18000	47	3800	290	< 1.5	**140**	1	35	34	110
		17651	13000	< 0.8	7	89	< 0.5	< 0.8	4600	39	10	**130**	17000	51	3400	290	< 1.5	**140**	1	34	33	110
	10 - 20 cm	17652	12000	< 0.8	10	77	< 0.5	< 0.8	4500	39	11	**160**	18000	41	3400	260	< 1.5	**170**	1	34	34	89
		17653	12000	< 0.8	8	78	< 0.5	< 0.8	4600	39	11	**150**	18000	39	3400	260	< 1.5	**180**	1	37	34	85
5037918 Greenwood Dr. (front yard)	0 - 5 cm	17588	11000	< 0.8	< 5	41	< 0.5	< 0.8	5000	27	7	56	14000	13	2600	200	< 1.5	**72**	< 1	41	28	23
		17589	12000	< 0.8	< 5	40	< 0.5	< 0.8	5200	27	6	59	14000	13	2500	200	< 1.5	**67**	< 1	41	29	20
	5 - 10 cm	17590	13000	< 0.8	< 5	46	< 0.5	< 0.8	5100	31	5	34	14000	9	2500	190	< 1.5	43	< 1	46	31	19
		17591	11000	< 0.8	< 5	36	< 0.5	< 0.8	4400	26	5	38	13000	9	2300	170	1.9	**47**	< 1	38	28	16
	10 - 20 cm	17592	11000	< 0.8	6	45	< 0.5	< 0.8	4000	26	9	79	13000	11	2200	250	< 1.5	**85**	< 1	37	28	22
		17593	10000	< 0.8	< 5	39	< 0.5	< 0.8	3700	25	7	46	13000	9	2100	230	< 1.5	**51**	< 1	34	27	18
5037923 Hebert St. (front yard)	0 - 5 cm	17618	11000	< 0.8	6	58	< 0.5	< 0.8	5100	33	7	**91**	16000	18	3500	240	< 1.5	**93**	1	41	32	35
		17619	11000	< 0.8	6	58	< 0.5	< 0.8	5300	35	7	79	16000	17	3400	250	< 1.5	**85**	< 1	42	33	34
	5 - 10 cm	17620	11000	< 0.8	6	51	< 0.5	< 0.8	4500	31	6	61	16000	12	3500	250	< 1.5	**68**	< 1	39	32	29
		17621	10000	< 0.8	5	50	< 0.5	< 0.8	4400	32	7	58	15000	12	3600	250	< 1.5	**71**	< 1	35	31	29
	10 - 20 cm	17622	10000	< 0.8	6	59	< 0.5	< 0.8	5400	33	7	48	17000	8	5600	270	< 1.5	**49**	< 1	33	33	24
		17623	9800	< 0.8	7	55	< 0.5	< 0.8	4700	35	8	51	17000	13	4800	270	1.6	**58**	< 1	31	32	27

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037921 Highgate Rd. (back yard)	0 - 5 cm	17606	12000	< 0.8	6	42	< 0.5	< 0.8	4500	30	5	35	13000	10	2100	200	< 1.5	**49**	< 1	42	29	26
		17607	12000	< 0.8	7	40	< 0.5	< 0.8	4400	30	6	44	13000	12	2200	210	< 1.5	**52**	< 1	41	29	30
	5 - 10 cm	17608	10000	< 0.8	< 5	36	< 0.5	< 0.8	3500	26	5	22	12000	8	2000	170	< 1.5	37	< 1	34	26	19
		17609	11000	< 0.8	< 5	39	< 0.5	< 0.8	4000	27	5	24	13000	8	2100	190	< 1.5	38	< 1	39	28	18
	10 - 20 cm	17610	7700	< 0.8	< 5	34	< 0.5	< 0.8	3400	27	5	22	11000	6	2500	160	< 1.5	36	< 1	29	25	16
		17611	7600	< 0.8	< 5	35	< 0.5	< 0.8	3200	25	5	25	11000	6	2500	160	< 1.5	37	< 1	29	25	19
5037908 Hines St. (front yard)	0 - 5 cm	17544	13000	< 0.8	16	66	< 0.5	< 0.8	4400	37	17	**240**	19000	34	2900	230	< 1.5	**310**	1	36	33	71
		17545	12000	< 0.8	**19**	65	< 0.5	0.9	4900	35	19	**270**	19000	37	2900	230	< 1.5	**360**	**2**	39	33	77
	5 - 10 cm	17546	17000	< 0.8	12	90	< 0.5	< 0.8	4500	40	11	**140**	18000	16	3000	220	< 1.5	**190**	< 1	44	37	48
		17547	16000	< 0.8	14	81	< 0.5	< 0.8	4700	37	12	**150**	18000	17	3200	260	< 1.5	**210**	< 1	46	37	61
	10 - 20 cm	17548	16000	< 0.8	8	83	< 0.5	< 0.8	4100	37	9	**89**	17000	10	3000	250	< 1.5	**100**	< 1	43	35	38
		17549	17000	< 0.8	10	87	< 0.5	< 0.8	4300	38	10	**110**	18000	13	3200	250	< 1.5	**140**	< 1	45	37	49
5028032 Howey Dr. (back yard)	0 - 5 cm	21066	7900	< 0.8	17	39	< 0.5	< 0.8	2200	23	10	**190**	13000	31	1900	130	< 1.5	**190**	1	23	25	44
		21067	7400	< 0.8	15	30	< 0.5	< 0.8	2200	22	9	**150**	12000	23	1800	130	< 1.5	**160**	1	22	23	37
	5 - 10 cm	21068	7900	< 0.8	**21**	34	< 0.5	< 0.8	2000	22	8	**110**	12000	16	1600	130	< 1.5	**120**	< 1	23	25	25
		21069	8900	< 0.8	**28**	41	< 0.5	< 0.8	2500	23	7	**120**	12000	17	1700	150	< 1.5	**110**	< 1	27	26	25
	10 - 20 cm	21070	12000	< 0.8	**19**	71	< 0.5	< 0.8	3300	32	10	**110**	15000	16	2500	200	< 1.5	**110**	< 1	34	31	29
		21071	12000	< 0.8	**21**	67	< 0.5	< 0.8	3300	31	9	**110**	14000	18	2300	180	< 1.5	**120**	< 1	35	31	27
5037922 Kenwood St. (front yard)	0 - 5 cm	17612	7500	< 0.8	13	48	< 0.5	< 0.8	5000	31	10	**160**	14000	31	2300	180	< 1.5	**190**	**2**	29	30	51
		17613	7200	< 0.8	12	47	< 0.5	< 0.8	4700	31	10	**130**	15000	28	2300	180	< 1.5	**180**	**2**	30	31	50
	5 - 10 cm	17614	6500	< 0.8	13	45	< 0.5	< 0.8	4700	30	8	**89**	12000	16	2200	160	< 1.5	**120**	1	25	31	35
		17615	7100	< 0.8	9	41	< 0.5	< 0.8	4500	28	6	72	13000	12	2400	170	< 1.5	**97**	1	28	31	34
	10 - 20 cm	17616	7000	< 0.8	8	45	< 0.5	< 0.8	5300	27	5	57	12000	11	2700	160	< 1.5	**75**	< 1	31	28	31
		17617	5900	< 0.8	8	33	< 0.5	< 0.8	4200	23	5	43	10000	7	2700	150	< 1.5	**55**	< 1	26	25	17
5037949 Lonsdale Ave. (front yard)	0 - 5 cm	20767	16000	< 0.8	7	88	< 0.5	< 0.8	4500	40	15	**150**	19000	38	3800	300	< 1.5	**160**	**2**	39	35	69
		20768	19000	< 0.8	7	100	< 0.5	< 0.8	5200	43	16	**150**	20000	38	4100	310	< 1.5	**170**	1	45	38	65
	5 - 10 cm	20769	15000	< 0.8	8	81	< 0.5	< 0.8	4200	39	14	**160**	19000	38	3800	270	< 1.5	**170**	**2**	36	37	61
		20770	15000	< 0.8	7	82	< 0.5	< 0.8	4300	40	16	**160**	19000	33	4000	300	< 1.5	**160**	**2**	34	36	63
	10 - 20 cm	20771	16000	< 0.8	8	79	< 0.5	< 0.8	4100	39	16	**120**	18000	32	3900	280	< 1.5	**150**	1	32	34	57
		20772	14000	< 0.8	7	79	< 0.5	< 0.8	3700	38	16	**130**	18000	29	4100	290	< 1.5	**140**	**2**	24	31	59

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037926 McKinnon St. (back yard)	0 - 5 cm	17636	12000	< 0.8	< 5	45	< 0.5	< 0.8	4500	32	6	71	15000	14	2600	180	< 1.5	**69**	< 1	41	31	29
		17637	9400	**1.5**	< 5	38	< 0.5	< 0.8	3600	29	6	62	13000	11	2400	170	< 1.5	**61**	< 1	28	26	27
	5 - 10 cm	17638	12000	< 0.8	< 5	45	< 0.5	< 0.8	3800	29	6	53	15000	12	2500	170	< 1.5	**53**	< 1	38	31	26
		17639	10000	< 0.8	< 5	44	< 0.5	< 0.8	3400	28	6	48	14000	10	2500	170	< 1.5	**50**	< 1	33	28	23
	10 - 20 cm	17640	10000	< 0.8	< 5	40	< 0.5	< 0.8	2400	25	7	47	14000	7	2000	130	1.6	**56**	< 1	23	28	31
		17641	9400	< 0.8	5	43	< 0.5	< 0.8	2500	25	6	68	14000	9	1900	140	< 1.5	**55**	< 1	27	27	24
5028030 Mooney St. (front yard)	0 - 5 cm	21054	9600	< 0.8	< 5	27	< 0.5	< 0.8	3400	29	7	59	13000	21	2300	150	< 1.5	**71**	< 1	32	26	35
		21055	9600	< 0.8	< 5	27	< 0.5	< 0.8	3200	29	7	56	12000	23	2200	140	< 1.5	**75**	< 1	32	26	33
	5 - 10 cm	21056	8700	< 0.8	< 5	28	< 0.5	< 0.8	3200	26	6	57	11000	18	1800	140	< 1.5	**68**	< 1	26	25	27
		21057	8300	< 0.8	< 5	30	< 0.5	< 0.8	2900	28	7	59	11000	19	1800	140	< 1.5	**68**	< 1	24	25	28
	10 - 20 cm	21058	8900	< 0.8	6	34	< 0.5	< 0.8	3000	26	9	76	13000	32	2100	150	< 1.5	**90**	< 1	30	26	28
		21059	10000	< 0.8	8	41	< 0.5	< 0.8	3700	29	10	**91**	15000	39	2400	170	< 1.5	**110**	< 1	36	29	38
5028033 North Shore Dr. (front yard)	0 - 5 cm	21072	11000	< 0.8	< 5	62	< 0.5	< 0.8	8200	34	9	**120**	14000	25	3700	220	< 1.5	**140**	1	42	30	42
		21073	9300	< 0.8	< 5	49	< 0.5	< 0.8	8000	30	9	**110**	13000	24	3700	210	< 1.5	**130**	< 1	41	27	41
	5 - 10 cm	21074	6700	< 0.8	< 5	30	< 0.5	< 0.8	7300	23	5	46	11000	9	3500	160	< 1.5	**55**	< 1	32	25	19
		21075	6300	< 0.8	< 5	28	< 0.5	< 0.8	7500	23	5	41	11000	9	3500	160	< 1.5	**51**	< 1	30	24	18
	10 - 20 cm	21076	5600	< 0.8	< 5	26	< 0.5	< 0.8	8900	22	4	23	10000	5	4400	160	< 1.5	27	< 1	29	23	13
		21077	5300	< 0.8	< 5	25	< 0.5	< 0.8	8600	22	5	27	10000	6	4300	160	< 1.5	32	< 1	27	22	15
5037924 Randolph St. (front yard)	0 - 5 cm	17624	8700	< 0.8	6	39	< 0.5	< 0.8	3900	30	7	**97**	14000	27	3100	250	< 1.5	**110**	1	33	29	33
		17625	8700	< 0.8	6	41	< 0.5	< 0.8	4000	28	7	**100**	14000	25	3000	260	< 1.5	**110**	1	36	29	32
	5 - 10 cm	17626	13000	< 0.8	6	47	< 0.5	< 0.8	4400	38	6	62	19000	13	4300	370	< 1.5	**67**	< 1	42	37	35
		17627	9900	< 0.8	6	34	< 0.5	< 0.8	3300	30	6	69	16000	12	3900	330	< 1.5	**70**	< 1	29	32	34
	10 - 20 cm	17628	6500	< 0.8	< 5	25	< 0.5	< 0.8	2100	22	6	33	11000	7	2300	160	< 1.5	**46**	< 1	21	23	17
		17629	8000	< 0.8	< 5	34	< 0.5	< 0.8	2900	24	5	35	12000	8	2200	210	< 1.5	**50**	< 1	30	28	18
5037917 Roger St. (back yard)	0 - 5 cm	17582	9400	< 0.8	5	40	< 0.5	< 0.8	5200	30	6	58	13000	14	2900	170	1.8	**59**	< 1	30	26	44
		17583	9700	< 0.8	6	42	< 0.5	< 0.8	5200	31	6	59	13000	15	2900	180	< 1.5	**57**	< 1	34	28	41
	5 - 10 cm	17584	10000	< 0.8	< 5	48	< 0.5	< 0.8	4100	31	7	34	14000	15	2900	190	< 1.5	**45**	< 1	31	28	32
		17585	10000	< 0.8	< 5	42	< 0.5	< 0.8	4300	30	6	29	14000	14	2700	190	< 1.5	39	< 1	33	28	26
	10 - 20 cm	17586	13000	< 0.8	< 5	79	< 0.5	< 0.8	5600	44	9	54	17000	19	4100	270	< 1.5	**62**	< 1	40	34	53
		17587	17000	< 0.8	< 5	100	< 0.5	< 0.8	6000	46	9	51	18000	22	4100	270	< 1.5	**59**	< 1	50	37	52

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037919 2nd Ave. S. (back yard)	0 - 5 cm	17594	6700	< 0.8	7	31	< 0.5	< 0.8	3900	20	8	**110**	11000	15	2000	120	< 1.5	**150**	< 1	25	21	27
		17595	7500	< 0.8	6	36	< 0.5	< 0.8	4100	23	8	**100**	11000	16	2200	140	< 1.5	**140**	1	28	23	27
	5 - 10 cm	17596	6100	< 0.8	7	29	< 0.5	< 0.8	3200	19	7	**92**	10000	10	1900	110	< 1.5	**130**	< 1	23	21	21
		17597	6300	< 0.8	7	29	< 0.5	< 0.8	3500	24	7	**90**	11000	11	1900	110	< 1.5	**130**	1	26	22	24
	10 - 20 cm	17598	6000	< 0.8	5	29	< 0.5	< 0.8	3200	17	6	77	9000	22	1700	100	< 1.5	**110**	< 1	23	19	26
		17599	6500	< 0.8	7	34	< 0.5	< 0.8	3800	19	7	**95**	10000	13	1800	120	< 1.5	**140**	< 1	27	20	22
5037927 Shappert Ave. (back yard)	0 - 5 cm	17642	9500	< 0.8	7	60	< 0.5	< 0.8	6200	28	11	**140**	15000	43	2400	450	< 1.5	**160**	1	34	25	56
		17643	12000	< 0.8	7	68	< 0.5	< 0.8	5800	33	13	**150**	17000	43	2600	430	< 1.5	**200**	1	39	28	60
	5 - 10 cm	17644	12000	< 0.8	8	71	< 0.5	< 0.8	5200	33	10	**120**	18000	31	2600	390	< 1.5	**150**	< 1	40	32	43
		17645	10000	< 0.8	7	52	< 0.5	< 0.8	3900	29	9	**100**	16000	24	2300	310	< 1.5	**140**	< 1	35	28	36
	10 - 20 cm	17646	9900	< 0.8	< 5	42	< 0.5	< 0.8	3100	24	6	59	13000	11	2000	170	< 1.5	**74**	< 1	32	27	24
		17647	11000	< 0.8	< 5	49	< 0.5	< 0.8	3200	30	7	72	14000	13	2100	180	< 1.5	**81**	< 1	34	28	28
5037916 Victor St. (back yard)	0 - 5 cm	17576	13000	0.9	**23**	83	< 0.5	**1.9**	7600	43	**41**	**1400**	26000	**130**	3700	200	< 1.5	**1400**	**9**	38	36	110
		17577	10000	< 0.8	5	58	< 0.5	< 0.8	6700	31	9	**110**	16000	19	3900	240	< 1.5	**110**	< 1	37	30	43
	5 - 10 cm	17578	9600	< 0.8	< 5	63	< 0.5	< 0.8	6200	31	10	**92**	16000	21	3800	280	< 1.5	**110**	< 1	36	31	65
		17579	9700	< 0.8	< 5	62	< 0.5	< 0.8	6200	31	10	**120**	17000	21	3800	260	< 1.5	**120**	< 1	35	31	47
	10 - 20 cm	17580	10000	< 0.8	< 5	78	< 0.5	< 0.8	8200	34	12	**120**	18000	28	4200	340	< 1.5	**140**	< 1	49	32	80
		17581	10000	< 0.8	6	74	< 0.5	< 0.8	7500	33	11	**130**	19000	28	3800	320	< 1.5	**160**	< 1	40	31	66
5037910 Yollie St. (front yard)	0 - 5 cm	17520	13000	< 0.8	11	78	< 0.5	< 0.8	4600	37	14	**190**	19000	42	3600	230	< 1.5	**220**	1	38	34	50
		17521	10000	< 0.8	< 5	56	< 0.5	< 0.8	3700	31	13	**150**	16000	34	3200	210	< 1.5	**170**	< 1	32	29	37
	5 - 10 cm	17522	15000	< 0.8	< 5	89	< 0.5	< 0.8	4000	43	11	79	19000	13	4400	250	< 1.5	**99**	< 1	41	37	34
		17523	15000	< 0.8	< 5	79	< 0.5	< 0.8	3700	39	11	**94**	18000	17	3800	240	< 1.5	**120**	< 1	40	35	35
	10 - 20 cm	17524	17000	< 0.8	< 5	93	< 0.5	< 0.8	4600	50	11	**100**	19000	17	3800	260	< 1.5	**130**	< 1	46	37	39
		17525	21000	< 0.8	< 5	130	< 0.5	< 0.8	4600	51	10	66	20000	11	4600	270	< 1.5	**99**	< 1	49	43	44
Community of Sudbury (New)																						
5037976 Agincourt Ave. (back yard)	0 - 5 cm	20701	12000	< 0.8	< 5	52	< 0.5	< 0.8	8500	43	8	44	17000	11	4700	300	< 1.5	**61**	< 1	46	36	33
		20702	11000	< 0.8	< 5	47	< 0.5	< 0.8	7200	38	7	39	15000	10	4200	250	< 1.5	**58**	< 1	38	32	30
	5 - 10 cm	20703	12000	< 0.8	< 5	51	< 0.5	< 0.8	9100	43	7	50	17000	11	5400	250	< 1.5	**73**	< 1	42	35	32
		20704	11000	< 0.8	5	47	< 0.5	< 0.8	7400	37	6	50	15000	10	4800	210	< 1.5	**68**	< 1	33	31	29
	10 - 20 cm	20705	13000	< 0.8	8	61	< 0.5	< 0.8	8100	41	10	**130**	18000	17	5300	290	< 1.5	**180**	< 1	45	36	34
		20706	13000	< 0.8	6	59	< 0.5	< 0.8	7100	37	7	74	16000	11	4800	230	< 1.5	**95**	< 1	43	34	32
5028083 Alexander St. (back yard)	0 - 5 cm	20635	8500	< 0.8	6	52	< 0.5	< 0.8	4400	30	9	**110**	14000	19	3200	210	< 1.5	**120**	1	26	27	37
		20636	7400	< 0.8	5	48	< 0.5	< 0.8	3500	29	8	**110**	13000	18	3000	200	< 1.5	**120**	1	16	24	38

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	20637	7800	< 0.8	< 5	48	< 0.5	< 0.8	3600	30	7	59	14000	10	3400	210	< 1.5	**70**	< 1	20	27	25
		20638	8300	< 0.8	< 5	49	< 0.5	< 0.8	4000	30	7	67	14000	12	3400	230	< 1.5	**78**	< 1	23	27	27
	10 - 20 cm	20639	6500	0.9	< 5	39	< 0.5	< 0.8	4900	26	6	34	12000	7	3800	190	< 1.5	40	< 1	20	24	19
		20640	6100	< 0.8	< 5	35	< 0.5	< 0.8	3900	24	5	36	11000	8	3100	180	< 1.5	42	< 1	18	22	19
5037980 Attlee Ave. (back yard)	0 - 5 cm	20725	16000	< 0.8	7	90	< 0.5	< 0.8	7500	39	11	**120**	17000	17	3800	260	< 1.5	**160**	1	50	36	50
		20726	15000	< 0.8	7	83	< 0.5	< 0.8	7500	40	10	**130**	17000	16	3600	220	< 1.5	**170**	1	50	35	41
	5 - 10 cm	20727	16000	< 0.8	6	84	< 0.5	< 0.8	6400	41	9	**120**	17000	15	3500	220	< 1.5	**140**	< 1	52	37	43
		20728	13000	< 0.8	7	63	< 0.5	< 0.8	6000	34	8	**120**	15000	13	3000	190	< 1.5	**150**	< 1	48	32	35
	10 - 20 cm	20729	16000	< 0.8	< 5	86	< 0.5	< 0.8	5600	42	7	68	16000	9	3800	220	< 1.5	**85**	< 1	53	37	33
		20730	13000	< 0.8	< 5	65	< 0.5	< 0.8	4500	37	9	67	16000	11	3200	230	< 1.5	**80**	< 1	45	35	32
5028019 Auger Ave. (back yard)	0 - 5 cm	17810	8800	< 0.8	< 5	41	< 0.5	< 0.8	3100	34	7	71	12000	15	2300	150	< 1.5	**82**	< 1	29	27	24
		17811	10000	< 0.8	< 5	42	< 0.5	< 0.8	2700	27	6	51	14000	8	2100	140	< 1.5	**56**	< 1	30	29	19
	5 - 10 cm	17812	9500	< 0.8	6	40	< 0.5	< 0.8	2900	30	6	66	13000	11	2200	140	< 1.5	**72**	< 1	31	28	22
		17813	8400	< 0.8	5	36	< 0.5	< 0.8	3000	34	6	69	12000	15	2200	140	< 1.5	**74**	< 1	28	26	23
	10 - 20 cm	17814	9300	< 0.8	8	46	< 0.5	< 0.8	2800	26	7	**120**	14000	15	2200	130	< 1.5	**120**	1	29	28	21
		17815	8600	< 0.8	6	31	< 0.5	< 0.8	2400	24	5	57	12000	8	1800	120	< 1.5	**55**	< 1	26	26	18
5037983 Beatrice Cr. (back yard)	0 - 5 cm	20743	8800	< 0.8	< 5	31	< 0.5	< 0.8	3400	27	6	65	12000	12	2300	150	< 1.5	**75**	**2**	29	26	25
		20744	9000	< 0.8	< 5	31	< 0.5	< 0.8	3600	27	6	72	11000	13	2300	140	< 1.5	**87**	1	33	26	25
	5 - 10 cm	20745	8400	< 0.8	< 5	29	< 0.5	< 0.8	3000	25	5	19	11000	5	2100	150	< 1.5	32	< 1	30	26	18
		20746	9200	< 0.8	< 5	33	< 0.5	< 0.8	3800	28	5	18	12000	5	2300	160	< 1.5	30	< 1	37	28	18
	10 - 20 cm	20747	6700	< 0.8	< 5	38	< 0.5	< 0.8	3000	25	5	14	11000	3	2500	210	< 1.5	22	< 1	30	27	14
		20748	7100	< 0.8	< 5	39	< 0.5	< 0.8	3200	28	5	16	11000	4	2600	210	< 1.5	21	1	30	28	15
5028023 Canterbury St. (front yard)	0 - 5 cm	17834	8800	< 0.8	< 5	46	< 0.5	< 0.8	4100	28	7	68	13000	13	2700	190	< 1.5	**90**	< 1	32	28	29
		17835	7300	< 0.8	< 5	40	< 0.5	< 0.8	3300	25	7	63	12000	13	2500	160	< 1.5	**86**	< 1	24	25	26
	5 - 10 cm	17836	6200	< 0.8	6	31	< 0.5	< 0.8	2400	22	6	58	11000	11	2100	140	< 1.5	**72**	< 1	16	22	22
		17837	7500	< 0.8	< 5	36	< 0.5	< 0.8	3300	25	6	55	12000	10	2300	170	< 1.5	**71**	< 1	25	26	21
	10 - 20 cm	17838	9700	< 0.8	< 5	49	< 0.5	< 0.8	4000	31	6	37	13000	9	2700	200	< 1.5	**54**	< 1	37	29	20
		17839	9900	< 0.8	< 5	52	< 0.5	< 0.8	4000	29	6	34	13000	6	2600	200	< 1.5	**49**	< 1	37	29	18

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037981 Chapman St. (back yard)	0 - 5 cm	20731	8400	< 0.8	< 5	33	< 0.5	< 0.8	3700	27	6	55	11000	12	2100	160	< 1.5	**75**	< 1	32	26	24
		20732	7800	< 0.8	< 5	29	< 0.5	< 0.8	3300	25	7	56	11000	14	2000	150	< 1.5	**79**	< 1	25	24	23
	5 - 10 cm	20733	7000	< 0.8	< 5	25	< 0.5	< 0.8	2600	22	5	41	10000	10	1900	130	< 1.5	**55**	< 1	20	22	19
		20734	6700	< 0.8	< 5	25	< 0.5	< 0.8	2500	21	5	46	10000	9	1800	140	< 1.5	**55**	< 1	22	23	17
	10 - 20 cm	20735	5400	< 0.8	< 5	22	< 0.5	< 0.8	2200	20	4	28	9500	6	2000	120	< 1.5	41	< 1	19	22	16
		20736	5300	< 0.8	< 5	21	< 0.5	< 0.8	2100	21	5	23	9400	5	2000	130	< 1.5	37	< 1	20	22	15
5028020 Claudia Ct. (front yard)	0 - 5 cm	17816	7500	< 0.8	6	36	< 0.5	< 0.8	3600	26	10	**140**	13000	29	2200	190	< 1.5	**150**	1	24	27	35
		17817	7500	< 0.8	6	33	< 0.5	< 0.8	3600	28	9	**120**	13000	26	2100	190	< 1.5	**140**	1	25	28	34
	5 - 10 cm	17818	7300	< 0.8	5	24	< 0.5	< 0.8	2600	23	5	48	11000	7	2200	160	< 1.5	**57**	< 1	21	25	22
		17819	7500	< 0.8	< 5	24	< 0.5	< 0.8	3000	24	5	48	12000	9	2000	170	< 1.5	**55**	< 1	26	26	22
	10 - 20 cm	17820	5700	< 0.8	< 5	27	< 0.5	< 0.8	2500	28	6	34	11000	6	2600	180	< 1.5	41	< 1	19	27	20
		17821	5400	< 0.8	< 5	23	< 0.5	< 0.8	2500	26	5	25	10000	4	2100	170	< 1.5	37	< 1	18	25	20
5028012 Colonial Ct. (back yard)	0 - 5 cm	17762	15000	< 0.8	< 5	76	< 0.5	< 0.8	5700	42	7	62	16000	13	3700	230	< 1.5	**68**	< 1	48	37	28
		17763	15000	< 0.8	< 5	70	< 0.5	< 0.8	5500	40	6	59	16000	12	3400	220	< 1.5	**58**	< 1	47	35	28
	5 - 10 cm	17764	14000	< 0.8	< 5	62	< 0.5	< 0.8	4500	37	6	32	15000	8	3300	220	< 1.5	**44**	< 1	46	34	23
		17765	13000	< 0.8	< 5	56	< 0.5	< 0.8	4500	35	6	36	16000	10	3100	230	< 1.5	**49**	< 1	44	33	23
	10 - 20 cm	17766	12000	< 0.8	< 5	75	< 0.5	< 0.8	5700	41	8	41	17000	7	4800	270	< 1.5	**56**	< 1	44	37	27
		17767	10000	< 0.8	< 5	60	< 0.5	< 0.8	4400	34	9	46	15000	7	4300	230	< 1.5	**61**	< 1	30	30	25
5028021 Danforth Ave. (back yard)	0 - 5 cm	17822	11000	< 0.8	5	55	< 0.5	< 0.8	5400	35	7	**86**	13000	14	2400	160	< 1.5	**120**	1	38	29	28
		17823	9700	**2.2**	< 5	49	< 0.5	< 0.8	5100	34	7	79	12000	13	2400	160	< 1.5	**120**	< 1	37	28	25
	5 - 10 cm	17824	11000	< 0.8	< 5	55	< 0.5	< 0.8	5200	34	7	77	13000	13	2300	160	< 1.5	**100**	< 1	38	30	27
		17825	11000	< 0.8	< 5	51	< 0.5	< 0.8	4400	35	6	68	13000	13	2300	150	< 1.5	**91**	< 1	37	30	24
	10 - 20 cm	17826	8300	< 0.8	< 5	38	< 0.5	< 0.8	3100	26	5	35	12000	7	2300	140	< 1.5	**50**	< 1	26	27	18
		17827	7700	< 0.8	< 5	34	< 0.5	< 0.8	2700	25	5	31	12000	5	2300	130	< 1.5	**44**	< 1	23	26	15
5028016 Eastern Ave. (back yard)	0 - 5 cm	17792	7100	< 0.8	< 5	33	< 0.5	< 0.8	4200	30	7	71	12000	21	2200	130	< 1.5	**89**	< 1	27	25	33
		17793	7200	< 0.8	< 5	33	< 0.5	< 0.8	3300	31	6	74	12000	19	2000	130	< 1.5	**85**	< 1	24	24	35
	5 - 10 cm	17794	6900	< 0.8	< 5	25	< 0.5	< 0.8	2300	23	5	49	12000	12	1900	130	< 1.5	**53**	< 1	22	26	30
		17795	6600	< 0.8	< 5	24	< 0.5	< 0.8	2200	23	5	46	12000	12	1900	120	< 1.5	**58**	< 1	20	26	22
	10 - 20 cm	17796	5300	< 0.8	< 5	21	< 0.5	< 0.8	1500	19	4	29	10000	5	1900	110	< 1.5	35	< 1	13	21	18
		17797	6500	< 0.8	< 5	24	< 0.5	< 0.8	2000	22	5	30	12000	7	1900	120	< 1.5	41	< 1	18	27	20

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in μg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028024 Elmhurst Ct. (front yard)	0 - 5 cm	17840	12000	< 0.8	6	64	< 0.5	< 0.8	5200	48	9	**110**	16000	27	2900	180	< 1.5	**130**	1	40	34	42
		17841	12000	< 0.8	< 5	59	< 0.5	< 0.8	4800	43	8	**98**	14000	23	2800	180	< 1.5	**120**	1	40	32	39
	5 - 10 cm	17842	9500	< 0.8	6	40	< 0.5	< 0.8	3700	30	6	76	12000	16	2100	150	< 1.5	**95**	< 1	36	28	26
		17843	9500	< 0.8	6	44	< 0.5	< 0.8	4000	32	7	83	12000	18	2200	160	< 1.5	**100**	< 1	36	28	29
	10 - 20 cm	17844	7200	< 0.8	5	32	< 0.5	< 0.8	2500	20	5	73	10000	10	1700	110	< 1.5	**80**	< 1	23	23	18
		17845	7200	< 0.8	6	32	< 0.5	< 0.8	2600	20	5	77	9800	10	1600	110	< 1.5	**91**	< 1	24	23	17
5028025 Fairburn St. (front yard)	0 - 5 cm	17846	9600	< 0.8	10	66	< 0.5	< 0.8	5200	35	19	**210**	16000	45	3000	190	< 1.5	**<u>250</u>**	**2**	36	29	45
		17847	8900	< 0.8	8	57	< 0.5	< 0.8	4700	34	17	**170**	15000	42	2900	190	< 1.5	**<u>230</u>**	**2**	34	28	40
	5 - 10 cm	17848	8000	< 0.8	8	47	< 0.5	< 0.8	3400	27	10	**120**	13000	25	2500	160	< 1.5	**150**	1	27	26	28
		17849	7700	< 0.8	7	43	< 0.5	< 0.8	3200	26	8	**94**	12000	16	2500	160	< 1.5	**120**	< 1	27	26	23
	10 - 20 cm	17850	8500	< 0.8	6	50	< 0.5	< 0.8	3500	29	9	77	13000	18	2700	180	< 1.5	**120**	< 1	33	28	27
		17851	8000	< 0.8	7	48	< 0.5	< 0.8	3300	26	8	76	12000	15	2500	160	< 1.5	**100**	< 1	30	26	24
5028079 Gary Ave. (back yard)	0 - 5 cm	17768	11000	< 0.8	9	76	< 0.5	< 0.8	6400	34	11	**120**	17000	30	3800	310	< 1.5	**150**	1	42	32	69
		17769	10000	< 0.8	7	67	< 0.5	< 0.8	6200	33	9	**99**	16000	32	3600	260	< 1.5	**120**	< 1	39	30	67
	5 - 10 cm	17770	10000	< 0.8	9	63	< 0.5	< 0.8	5400	30	9	**97**	15000	21	3200	280	< 1.5	**120**	1	39	30	50
		17771	10000	< 0.8	10	63	< 0.5	< 0.8	6400	30	8	**87**	16000	29	3500	260	< 1.5	**110**	< 1	39	30	67
	10 - 20 cm	17772	12000	< 0.8	8	67	< 0.5	< 0.8	6600	31	7	72	16000	15	3300	270	< 1.5	**80**	< 1	45	32	45
		17773	11000	< 0.8	8	56	< 0.5	< 0.8	5600	28	6	58	15000	14	2900	220	< 1.5	**72**	< 1	40	31	45
5037984 Gemmell St. (front yard)	0 - 5 cm	20749	11000	< 0.8	5	51	< 0.5	< 0.8	6700	34	9	**110**	14000	24	3300	200	< 1.5	**140**	1	42	31	34
		20750	12000	< 0.8	7	63	< 0.5	< 0.8	7900	36	10	**140**	15000	25	3600	200	< 1.5	**<u>170</u>**	**2**	45	31	35
	5 - 10 cm	20751	9700	< 0.8	< 5	34	< 0.5	< 0.8	5600	28	6	58	13000	11	2900	160	< 1.5	**74**	**2**	36	28	20
		20752	9200	< 0.8	< 5	41	< 0.5	< 0.8	6500	29	7	**80**	13000	13	3200	170	< 1.5	**110**	1	36	29	22
	10 - 20 cm	20753	9600	< 0.8	< 5	37	< 0.5	< 0.8	8100	28	5	33	13000	6	4000	170	< 1.5	**42**	< 1	32	28	18
		20754	8800	< 0.8	< 5	47	< 0.5	< 0.8	12000	28	7	63	13000	11	5600	200	< 1.5	**83**	1	38	29	22
5028081 Gordon Ave. (back yard)	0 - 5 cm	20623	13000	< 0.8	< 5	54	< 0.5	< 0.8	9000	43	8	45	17000	11	5100	310	< 1.5	**70**	< 1	48	37	33
		20624	12000	< 0.8	< 5	48	< 0.5	< 0.8	7700	38	7	39	16000	9	4400	250	< 1.5	**60**	< 1	40	33	31
	5 - 10 cm	20625	13000	< 0.8	< 5	52	< 0.5	< 0.8	9300	44	7	51	17000	11	5500	250	< 1.5	**68**	< 1	47	37	32
		20626	12000	< 0.8	< 5	49	< 0.5	< 0.8	8200	38	7	52	16000	10	5000	220	< 1.5	**68**	< 1	38	33	31
	10 - 20 cm	20627	14000	< 0.8	8	62	< 0.5	< 0.8	8200	41	10	**130**	19000	17	5300	280	< 1.5	**150**	< 1	45	37	35
		20628	14000	< 0.8	5	61	< 0.5	< 0.8	7700	37	8	76	17000	11	5200	250	< 1.5	**87**	< 1	45	35	33

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028086 Grandview Blvd. (back yard)	0 - 5 cm	20653	14000	< 0.8	8	69	< 0.5	< 0.8	4200	39	9	**120**	12000	23	2800	160	< 1.5	**130**	**2**	38	29	49
		20654	13000	< 0.8	9	60	< 0.5	< 0.8	3400	36	7	**110**	11000	20	2600	150	< 1.5	**110**	**2**	32	26	40
	5 - 10 cm	20655	15000	< 0.8	< 5	68	< 0.5	< 0.8	3500	39	7	60	13000	14	2400	160	< 1.5	**79**	< 1	36	29	36
		20656	15000	< 0.8	5	71	< 0.5	< 0.8	3300	41	6	58	13000	14	3200	160	< 1.5	**74**	1	34	30	34
	10 - 20 cm	20657	18000	< 0.8	< 5	120	< 0.5	< 0.8	4400	56	10	53	21000	11	6200	300	< 1.5	**62**	< 1	41	43	41
		20658	20000	< 0.8	< 5	110	< 0.5	< 0.8	4500	57	9	43	21000	11	6300	280	< 1.5	**55**	< 1	45	44	37
5037979 Hastings Cr. (back yard)	0 - 5 cm	20719	9700	< 0.8	6	51	< 0.5	< 0.8	4900	30	8	**95**	13000	14	3100	190	< 1.5	**130**	< 1	36	29	39
		20720	9600	< 0.8	5	50	< 0.5	< 0.8	5100	29	9	**94**	13000	15	3100	180	< 1.5	**130**	< 1	37	29	37
	5 - 10 cm	20721	7700	< 0.8	7	39	< 0.5	< 0.8	3600	23	7	**110**	11000	13	2300	140	< 1.5	**140**	< 1	24	24	30
		20722	8600	< 0.8	8	45	< 0.5	< 0.8	4000	25	7	**99**	12000	12	2500	160	< 1.5	**120**	1	30	25	32
	10 - 20 cm	20723	11000	< 0.8	6	54	< 0.5	< 0.8	4600	28	6	73	12000	10	2300	160	< 1.5	**93**	< 1	44	29	27
		20724	9100	< 0.8	6	44	< 0.5	< 0.8	4300	24	6	78	11000	10	2100	140	< 1.5	**100**	< 1	39	25	28
5028010 Havenbrook Dr. (front yard)	0 - 5 cm	17750	9700	< 0.8	< 5	40	< 0.5	< 0.8	5800	30	6	46	13000	12	3300	200	< 1.5	**64**	< 1	33	29	26
		17751	10000	< 0.8	< 5	38	< 0.5	< 0.8	5800	30	6	46	13000	12	3200	210	< 1.5	**60**	< 1	37	29	27
	5 - 10 cm	17752	10000	< 0.8	< 5	41	< 0.5	< 0.8	4400	32	6	30	14000	7	3200	210	< 1.5	40	< 1	35	30	20
		17753	9700	< 0.8	< 5	41	< 0.5	< 0.8	5200	31	7	36	14000	9	3300	210	< 1.5	**50**	< 1	32	30	21
	10 - 20 cm	17754	9400	< 0.8	< 5	55	< 0.5	< 0.8	4500	33	9	52	15000	12	4100	210	< 1.5	**58**	< 1	31	33	22
		17755	10000	< 0.8	< 5	63	< 0.5	< 0.8	5200	35	10	59	16000	11	4400	230	< 1.5	**65**	< 1	34	33	24
5037982 Hawthorne Dr. (back yard)	0 - 5 cm	20737	8600	< 0.8	6	68	< 0.5	< 0.8	4100	30	11	**150**	14000	33	3000	180	< 1.5	**<u>200</u>**	**2**	31	27	47
		20738	8200	< 0.8	7	50	< 0.5	1.0	3800	30	10	**140**	13000	29	2900	180	< 1.5	**<u>180</u>**	1	30	26	47
	5 - 10 cm	20739	7300	< 0.8	< 5	42	< 0.5	< 0.8	2900	26	7	**87**	11000	27	2500	160	< 1.5	**98**	< 1	26	24	35
		20740	7000	< 0.8	< 5	34	< 0.5	< 0.8	2700	25	6	54	11000	16	2400	160	< 1.5	**61**	< 1	26	24	25
	10 - 20 cm	20741	7300	< 0.8	< 5	39	< 0.5	< 0.8	2600	27	6	38	12000	11	2700	170	< 1.5	**57**	< 1	25	26	24
		20742	7200	< 0.8	< 5	41	< 0.5	< 0.8	2500	27	6	34	12000	8	2800	180	< 1.5	**50**	< 1	23	25	23
5028087 Inglewood Ct. (back yard)	0 - 5 cm	20659	12000	< 0.8	< 5	45	< 0.5	< 0.8	3700	33	8	82	15000	14	2900	220	< 1.5	**82**	< 1	37	33	35
		20660	12000	< 0.8	< 5	44	< 0.5	< 0.8	3700	34	8	**95**	16000	16	3000	230	< 1.5	**95**	1	37	35	38
	5 - 10 cm	20661	13000	< 0.8	< 5	44	< 0.5	< 0.8	3200	33	7	51	16000	10	2900	210	< 1.5	**55**	< 1	33	33	31
		20662	12000	< 0.8	< 5	43	< 0.5	< 0.8	3000	32	7	45	16000	8	2800	190	< 1.5	**50**	< 1	32	33	28
	10 - 20 cm	20663	13000	< 0.8	< 5	52	< 0.5	< 0.8	3500	35	8	55	16000	10	3300	240	< 1.5	**60**	< 1	35	36	32
		20664	12000	< 0.8	< 5	48	< 0.5	< 0.8	3100	33	7	55	16000	9	3000	180	< 1.5	**56**	< 1	34	35	30

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit.   NG - no guideline.   All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028014 Josephine St. (back yard)	0 - 5 cm	17780	5900	< 0.8	5	37	< 0.5	< 0.8	3900	22	6	34	10000	7	2200	150	< 1.5	**50**	< 1	26	22	24
		17781	6800	< 0.8	5	45	< 0.5	< 0.8	4400	25	7	41	11000	7	2500	170	< 1.5	**57**	< 1	31	25	25
	5 - 10 cm	17782	6800	< 0.8	< 5	44	< 0.5	< 0.8	4600	26	6	34	11000	5	2300	160	< 1.5	**50**	< 1	33	25	18
		17783	6300	< 0.8	5	38	< 0.5	< 0.8	4200	22	7	33	10000	5	2200	150	< 1.5	**53**	< 1	31	23	17
	10 - 20 cm	17784	8300	< 0.8	5	57	< 0.5	< 0.8	5700	27	7	35	11000	5	2500	170	< 1.5	**54**	< 1	37	27	20
		17785	7500	< 0.8	5	50	< 0.5	< 0.8	5300	24	6	31	10000	6	2200	160	< 1.5	**49**	< 1	36	25	19
5028007 Kennedy St. (front yard)	0 - 5 cm	17732	8700	< 0.8	8	57	< 0.5	< 0.8	5000	32	10	**140**	15000	28	3300	220	< 1.5	<u>**180**</u>	**2**	31	29	40
		17733	8600	< 0.8	7	55	< 0.5	< 0.8	4500	31	10	**120**	14000	28	3200	210	< 1.5	<u>**160**</u>	1	30	29	38
	5 - 10 cm	17734	9400	< 0.8	10	74	< 0.5	< 0.8	5400	32	9	**120**	15000	23	3000	230	< 1.5	<u>**180**</u>	**2**	33	31	39
		17735	8900	< 0.8	8	56	< 0.5	< 0.8	5000	31	9	**120**	15000	23	3000	220	< 1.5	<u>**160**</u>	**2**	31	31	36
	10 - 20 cm	17736	8500	< 0.8	< 5	52	< 0.5	< 0.8	4100	29	6	51	14000	9	3000	200	< 1.5	**76**	1	28	29	28
		17737	8200	< 0.8	< 5	48	< 0.5	< 0.8	3800	28	6	49	13000	9	2700	180	< 1.5	**70**	1	28	29	22
5028022 Kipling Ct. (front yard)	0 - 5 cm	17828	7300	< 0.8	7	47	< 0.5	< 0.8	6000	25	10	**150**	11000	25	2500	170	< 1.5	<u>**180**</u>	**2**	32	25	33
		17829	7100	< 0.8	8	44	< 0.5	< 0.8	5500	26	10	**130**	11000	25	2400	150	< 1.5	<u>**180**</u>	**2**	31	25	29
	5 - 10 cm	17830	7900	< 0.8	9	51	< 0.5	< 0.8	5800	26	8	**110**	11000	17	2400	170	< 1.5	**140**	1	33	26	28
		17831	7100	< 0.8	8	44	< 0.5	< 0.8	5100	25	6	72	10000	23	2300	140	< 1.5	**91**	1	31	25	20
	10 - 20 cm	17832	7000	< 0.8	8	46	< 0.5	< 0.8	5000	23	6	60	10000	10	2300	160	< 1.5	**86**	< 1	29	25	31
		17833	6200	**1.2**	6	36	< 0.5	< 0.8	4100	22	5	37	10000	6	2200	130	< 1.5	**56**	< 1	25	23	15
5037973 Lamothe St. (back yard)	0 - 5 cm	20683	10000	< 0.8	6	49	< 0.5	< 0.8	4600	29	8	**93**	14000	19	2700	200	< 1.5	**110**	1	36	29	39
		20684	10000	< 0.8	7	52	< 0.5	< 0.8	4600	31	8	**99**	14000	21	2800	210	< 1.5	**120**	< 1	36	30	41
	5 - 10 cm	20685	11000	< 0.8	< 5	48	< 0.5	< 0.8	4600	30	7	80	15000	14	2700	190	< 1.5	**93**	1	41	31	34
		20686	13000	< 0.8	< 5	64	< 0.5	< 0.8	5300	35	7	**120**	15000	15	2800	200	< 1.5	**90**	1	48	34	41
	10 - 20 cm	20687	8800	< 0.8	6	47	< 0.5	< 0.8	3700	27	6	44	13000	9	2500	170	< 1.5	**57**	1	37	28	22
		20688	11000	< 0.8	< 5	62	< 0.5	< 0.8	4500	33	6	46	14000	8	2800	200	< 1.5	**62**	1	44	32	23
5028008 Lamothe St. (front yard)	0 - 5 cm	17738	8700	< 0.8	< 5	34	< 0.5	< 0.8	3300	27	6	57	12000	12	2500	180	< 1.5	**67**	1	29	26	26
		17739	9200	< 0.8	< 5	34	< 0.5	< 0.8	3600	30	6	63	13000	15	2700	190	< 1.5	**70**	1	33	27	29
	5 - 10 cm	17740	9300	< 0.8	< 5	32	< 0.5	< 0.8	3000	27	6	38	12000	10	2300	200	< 1.5	**52**	< 1	26	26	25
		17741	9500	< 0.8	< 5	31	< 0.5	< 0.8	3200	27	5	36	12000	10	2300	190	< 1.5	**47**	< 1	30	26	24
	10 - 20 cm	17742	9500	< 0.8	< 5	37	< 0.5	< 0.8	3200	27	5	28	12000	9	2300	200	< 1.5	43	< 1	30	26	23
		17743	12000	< 0.8	< 5	49	< 0.5	< 0.8	4600	33	5	31	14000	8	2700	230	< 1.5	**45**	< 1	45	31	25

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028017 Lasalle Blvd. (front yard)	0 - 5 cm	17798	9500	**1.1**	7	52	< 0.5	< 0.8	4200	32	10	**110**	15000	33	2600	170	< 1.5	**110**	1	34	28	52
		17799	12000	< 0.8	6	69	< 0.5	< 0.8	4500	37	11	**120**	16000	36	2800	190	< 1.5	**110**	< 1	41	31	56
	5 - 10 cm	17800	11000	< 0.8	< 5	56	< 0.5	< 0.8	4100	34	7	61	14000	13	2500	180	< 1.5	**66**	< 1	42	30	36
		17801	11000	< 0.8	7	49	< 0.5	< 0.8	3800	29	7	62	13000	14	2300	170	< 1.5	**64**	< 1	40	29	34
	10 - 20 cm	17802	9900	< 0.8	< 5	46	< 0.5	< 0.8	3500	28	7	71	13000	9	2400	170	< 1.5	**55**	< 1	39	28	28
		17803	11000	< 0.8	< 5	54	< 0.5	< 0.8	3700	29	7	48	14000	11	2500	170	< 1.5	**59**	< 1	40	30	31
5028085 Lavoie St. (back yard)	0 - 5 cm	20647	11000	< 0.8	< 5	47	< 0.5	< 0.8	7100	31	9	78	15000	14	4300	230	< 1.5	**130**	< 1	44	30	41
		20648	14000	< 0.8	7	70	< 0.5	< 0.8	6400	38	10	**110**	17000	16	3700	250	< 1.5	**160**	< 1	48	35	46
	5 - 10 cm	20649	12000	< 0.8	< 5	48	< 0.5	< 0.8	5400	33	8	79	15000	12	3400	200	< 1.5	**110**	< 1	45	33	31
		20650	14000	< 0.8	5	67	< 0.5	< 0.8	5500	38	9	84	17000	13	3800	220	< 1.5	**110**	< 1	46	36	35
	10 - 20 cm	20651	13000	< 0.8	7	58	< 0.5	< 0.8	5500	35	9	**100**	19000	12	3600	210	< 1.5	**130**	< 1	46	37	40
		20652	9500	< 0.8	6	38	< 0.5	< 0.8	3500	27	8	**91**	15000	10	3200	180	< 1.5	**95**	< 1	34	32	34
5037978 Lillian Blvd. (back yard)	0 - 5 cm	20713	9800	< 0.8	< 5	34	< 0.5	< 0.8	3600	31	6	28	16000	4	3500	170	< 1.5	36	< 1	29	32	23
		20714	9300	**2.0**	6	37	< 0.5	< 0.8	2800	25	6	69	12000	12	2000	160	< 1.5	**90**	< 1	27	26	30
	5 - 10 cm	20715	9500	< 0.8	8	39	< 0.5	< 0.8	3000	28	7	82	13000	13	2100	170	< 1.5	**110**	< 1	29	26	32
		20716	11000	< 0.8	5	57	< 0.5	< 0.8	3800	34	7	64	15000	10	3100	210	< 1.5	**82**	< 1	37	32	34
	10 - 20 cm	20717	9900	< 0.8	6	63	< 0.5	< 0.8	3000	34	8	68	15000	8	3400	210	< 1.5	**70**	< 1	27	30	30
		20718	13000	< 0.8	< 5	76	< 0.5	< 0.8	4400	41	7	53	18000	7	4300	270	< 1.5	**66**	< 1	43	37	34
5028084 Madeleine Ave. (back yard)	0 - 5 cm	20641	8100	< 0.8	< 5	38	< 0.5	< 0.8	3900	26	7	74	12000	23	2300	220	< 1.5	**84**	< 1	24	23	47
		20642	7600	< 0.8	< 5	38	< 0.5	< 0.8	3600	25	6	78	11000	24	2100	220	< 1.5	**81**	1	22	22	47
	5 - 10 cm	20643	7300	< 0.8	< 5	34	< 0.5	< 0.8	2900	24	5	48	10000	18	2100	190	< 1.5	**53**	< 1	16	21	36
		20644	8200	< 0.8	< 5	41	< 0.5	< 0.8	3900	26	5	60	11000	20	2200	230	< 1.5	**64**	< 1	24	24	56
	10 - 20 cm	20645	7900	< 0.8	< 5	44	< 0.5	< 0.8	4800	26	5	50	11000	16	2400	250	< 1.5	**59**	< 1	29	24	52
		20646	11000	< 0.8	< 5	68	< 0.5	< 0.8	8300	32	6	47	14000	14	2900	390	< 1.5	**69**	< 1	56	31	58
5028009 Madison Ave. (front yard)	0 - 5 cm	17744	14000	< 0.8	9	94	< 0.5	< 0.8	7000	47	11	**130**	17000	20	3700	320	< 1.5	**170**	1	44	36	55
		17745	13000	< 0.8	9	83	< 0.5	< 0.8	6500	44	11	**130**	17000	21	3600	300	< 1.5	**170**	1	42	34	57
	5 - 10 cm	17746	15000	< 0.8	9	99	< 0.5	< 0.8	7200	47	13	**110**	18000	17	3900	340	< 1.5	**160**	< 1	46	37	55
		17747	15000	< 0.8	8	98	< 0.5	< 0.8	6900	47	11	**110**	18000	18	3900	330	< 1.5	**150**	< 1	47	37	55
	10 - 20 cm	17748	13000	< 0.8	< 5	83	< 0.5	< 0.8	6200	38	10	**87**	16000	12	3800	300	< 1.5	**130**	< 1	39	32	47
		17749	12000	< 0.8	6	83	< 0.5	< 0.8	6500	39	10	81	16000	11	4300	320	< 1.5	**120**	< 1	38	33	46

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028011 Madison Ave. (front yard)	0 - 5 cm	17756	12000	< 0.8	< 5	76	< 0.5	< 0.8	5000	43	9	78	16000	18	4000	270	< 1.5	**98**	< 1	36	34	41
		17757	11000	< 0.8	< 5	62	< 0.5	< 0.8	4100	37	8	**110**	15000	21	3400	240	< 1.5	**100**	1	30	31	49
	5 - 10 cm	17758	13000	< 0.8	< 5	77	< 0.5	< 0.8	5100	41	8	70	17000	13	4200	280	< 1.5	**77**	< 1	38	36	39
		17759	14000	< 0.8	< 5	83	< 0.5	< 0.8	5300	43	9	66	17000	14	4100	290	< 1.5	**82**	< 1	41	37	42
	10 - 20 cm	17760	14000	< 0.8	< 5	73	< 0.5	< 0.8	5600	38	7	39	16000	16	3800	210	< 1.5	**47**	< 1	45	36	21
		17761	16000	< 0.8	< 5	88	< 0.5	< 0.8	5200	43	6	32	17000	7	3900	220	< 1.5	**45**	< 1	47	37	26
5028082 McLean St. (back yard)	0 - 5 cm	20629	14000	< 0.8	5	79	< 0.5	< 0.8	6000	42	8	65	17000	11	3900	220	< 1.5	**76**	< 1	45	37	57
		20630	13000	< 0.8	< 5	67	< 0.5	< 0.8	5800	39	9	66	17000	11	3800	220	< 1.5	**76**	< 1	43	36	54
	5 - 10 cm	20631	13000	< 0.8	< 5	61	< 0.5	< 0.8	5200	36	7	37	17000	7	3700	190	< 1.5	**45**	< 1	43	36	28
		20632	13000	< 0.8	< 5	67	< 0.5	< 0.8	5300	40	7	35	17000	7	3700	200	< 1.5	**44**	< 1	44	37	28
	10 - 20 cm	20633	15000	< 0.8	< 5	71	< 0.5	< 0.8	5200	40	7	38	18000	7	3500	200	< 1.5	**49**	< 1	44	40	26
		20634	19000	**1.5**	9	140	< 0.5	< 0.8	7000	57	12	**130**	26000	66	7000	360	< 1.5	**160**	< 1	55	46	85
5028018 Meadowside Ave. (front yard)	0 - 5 cm	17804	11000	< 0.8	6	56	< 0.5	< 0.8	4100	31	9	**110**	13000	21	2800	160	< 1.5	**130**	< 1	38	29	29
		17805	9600	< 0.8	< 5	46	< 0.5	< 0.8	3600	28	9	**120**	12000	22	2500	140	< 1.5	**150**	< 1	33	26	29
	5 - 10 cm	17806	9500	< 0.8	< 5	45	< 0.5	< 0.8	3300	26	8	**92**	11000	15	2300	140	< 1.5	**130**	< 1	30	25	30
		17807	8900	< 0.8	< 5	41	< 0.5	< 0.8	3000	24	7	71	10000	12	2200	130	< 1.5	**110**	< 1	28	24	23
	10 - 20 cm	17808	7600	< 0.8	< 5	34	< 0.5	< 0.8	2200	22	5	35	11000	6	2100	110	< 1.5	**57**	< 1	17	22	17
		17809	8900	< 0.8	< 5	38	< 0.5	< 0.8	2800	24	6	30	11000	6	2200	130	< 1.5	**58**	< 1	28	25	17
5028088 Montrose Ave. (back yard)	0 - 5 cm	20665	13000	< 0.8	6	89	< 0.5	< 0.8	6400	43	14	**170**	19000	29	5100	310	< 1.5	**200**	1	43	36	72
		20666	13000	< 0.8	< 5	88	< 0.5	< 0.8	6700	45	12	**150**	20000	26	5400	290	< 1.5	**170**	1	44	38	57
	5 - 10 cm	20667	15000	< 0.8	< 5	95	< 0.5	< 0.8	7300	48	10	83	21000	12	6500	290	< 1.5	**120**	< 1	47	41	39
		20668	15000	< 0.8	< 5	100	< 0.5	< 0.8	7100	48	11	**110**	19000	18	5500	280	< 1.5	**140**	< 1	53	42	46
	10 - 20 cm	20669	18000	< 0.8	< 5	110	< 0.5	< 0.8	8600	50	9	50	21000	8	6700	300	< 1.5	**65**	< 1	57	45	33
		20670	12000	< 0.8	< 5	68	< 0.5	< 0.8	4700	35	8	81	15000	18	3300	210	< 1.5	**89**	< 1	40	33	51
5028015 Robin St. (back yard)	0 - 5 cm	17786	16000	< 0.8	< 5	85	< 0.5	< 0.8	6100	41	8	63	17000	13	3800	250	< 1.5	**76**	< 1	46	37	41
		17787	13000	< 0.8	< 5	65	< 0.5	< 0.8	5300	36	7	68	16000	15	3500	240	< 1.5	**74**	< 1	41	33	51
	5 - 10 cm	17788	12000	< 0.8	5	61	< 0.5	< 0.8	4100	35	7	55	16000	11	3500	240	< 1.5	**66**	< 1	35	32	35
		17789	12000	< 0.8	< 5	59	< 0.5	< 0.8	4200	39	7	54	15000	16	3500	220	< 1.5	**65**	< 1	33	31	45
	10 - 20 cm	17790	11000	< 0.8	< 5	72	< 0.5	< 0.8	5600	37	8	43	17000	8	4600	260	< 1.5	**52**	< 1	34	34	28
		17791	13000	< 0.8	< 5	76	< 0.5	< 0.8	5200	40	7	41	18000	8	4500	260	< 1.5	**49**	< 1	39	36	32

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037972 Roland St. (back yard)	0 - 5 cm	20677	10000	< 0.8	9	47	< 0.5	< 0.8	4100	28	11	**180**	15000	29	2500	190	< 1.5	**210**	**2**	36	29	36
		20678	11000	< 0.8	9	50	< 0.5	< 0.8	4600	30	12	**190**	15000	34	2500	220	< 1.5	**210**	< 1	40	30	43
	5 - 10 cm	20679	11000	< 0.8	9	51	< 0.5	< 0.8	4000	31	9	**130**	15000	17	2600	180	< 1.5	**150**	**2**	41	32	26
		20680	12000	< 0.8	10	51	< 0.5	< 0.8	3900	31	10	**140**	16000	18	2400	200	< 1.5	**170**	1	42	33	27
	10 - 20 cm	20681	9500	< 0.8	7	54	< 0.5	< 0.8	3500	28	6	81	12000	10	2600	160	< 1.5	**87**	< 1	39	31	23
		20682	10000	< 0.8	6	52	< 0.5	< 0.8	3600	28	7	68	14000	8	2700	180	1.9	**79**	1	39	30	21
5028013 San Fransciso St. (front yard)	0 - 5 cm	17774	9300	< 0.8	8	46	< 0.5	< 0.8	4200	26	8	84	13000	23	2500	200	< 1.5	**99**	< 1	32	27	37
		17775	9100	< 0.8	6	49	< 0.5	< 0.8	4500	27	8	81	13000	24	2500	210	< 1.5	**100**	< 1	35	29	38
	5 - 10 cm	17776	10000	< 0.8	10	42	< 0.5	< 0.8	3400	26	7	75	14000	15	2300	170	< 1.5	**82**	< 1	29	29	27
		17777	10000	< 0.8	8	43	< 0.5	< 0.8	3900	26	8	69	14000	17	2200	190	< 1.5	**94**	< 1	32	29	29
	10 - 20 cm	17778	7700	< 0.8	7	40	< 0.5	< 0.8	2400	23	8	79	12000	30	2100	150	< 1.5	**100**	< 1	19	24	27
		17779	8400	< 0.8	9	37	< 0.5	< 0.8	2900	24	8	71	13000	16	2100	160	< 1.5	**94**	< 1	24	26	27
5037977 Shelley Dr. (back yard)	0 - 5 cm	20707	13000	< 0.8	6	74	< 0.5	< 0.8	5800	41	8	62	17000	11	3900	220	< 1.5	**80**	< 1	43	36	54
		20708	14000	**1.1**	< 5	80	< 0.5	< 0.8	5800	42	9	64	18000	12	3900	230	< 1.5	**79**	< 1	44	37	53
	5 - 10 cm	20709	11000	< 0.8	< 5	45	< 0.5	< 0.8	4400	33	7	36	16000	7	3400	190	< 1.5	**44**	< 1	38	34	27
		20710	10000	< 0.8	< 5	43	< 0.5	< 0.8	4300	33	6	34	15000	7	3500	180	< 1.5	43	< 1	37	33	27
	10 - 20 cm	20711	14000	< 0.8	< 5	67	< 0.5	< 0.8	4800	39	7	36	18000	6	3500	200	< 1.5	**49**	< 1	45	39	25
		20712	10000	< 0.8	< 5	37	< 0.5	< 0.8	3800	31	6	29	16000	4	3300	180	< 1.5	39	< 1	33	34	24
5028080 Turner Ave. (back yard)	0 - 5 cm	20617	7700	< 0.8	5	42	< 0.5	< 0.8	3800	30	8	**97**	12000	36	2300	170	< 1.5	**103**	< 1	29	28	63
		20618	8500	< 0.8	< 5	50	< 0.5	< 0.8	4200	29	8	73	13000	23	2700	220	< 1.5	**110**	< 1	31	27	52
	5 - 10 cm	20619	8700	< 0.8	5	50	< 0.5	< 0.8	4400	29	8	76	13000	23	2800	220	< 1.5	**100**	< 1	32	28	46
		20620	8600	< 0.8	6	49	< 0.5	< 0.8	4300	28	8	76	13000	22	2800	230	< 1.5	**99**	< 1	31	27	46
	10 - 20 cm	20621	9000	< 0.8	< 5	52	< 0.5	< 0.8	5500	28	8	67	13000	20	2900	290	< 1.5	**85**	< 1	36	27	42
		20622	8900	< 0.8	< 5	61	< 0.5	< 0.8	6800	28	8	65	14000	20	2800	320	< 1.5	**78**	< 1	39	27	51
5028089 Wedgewood Dr. (back yard)	0 - 5 cm	20671	13000	< 0.8	< 5	73	< 0.5	< 0.8	5600	41	10	85	16000	19	3200	220	< 1.5	**100**	< 1	42	34	49
		20672	9900	< 0.8	5	55	< 0.5	< 0.8	4500	32	10	**99**	15000	18	3300	200	< 1.5	**99**	< 1	34	30	56
	5 - 10 cm	20673	12000	< 0.8	5	65	< 0.5	< 0.8	5100	34	9	79	16000	16	3400	210	< 1.5	**100**	< 1	40	33	38
		20674	11000	< 0.8	< 5	57	< 0.5	< 0.8	4600	31	8	81	15000	15	3100	200	< 1.5	**92**	< 1	38	32	40
	10 - 20 cm	20675	11000	< 0.8	< 5	68	< 0.5	< 0.8	4700	34	8	75	16000	14	3400	210	< 1.5	**84**	< 1	39	33	34
		20676	11000	< 0.8	< 5	59	< 0.5	< 0.8	4600	33	8	83	16000	16	3200	210	< 1.5	**90**	1	39	33	43

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037974 Woodbine Ave. (back yard)	0 - 5 cm	20689	16000	< 0.8	6	83	< 0.5	< 0.8	5700	49	10	**120**	18000	23	3800	260	< 1.5	**130**	**2**	48	36	70
		20690	15000	< 0.8	6	84	< 0.5	< 0.8	5500	49	10	**120**	18000	27	3600	250	< 1.5	**140**	**2**	47	36	57
	5 - 10 cm	20691	16000	< 0.8	6	82	< 0.5	< 0.8	4900	49	9	**87**	18000	18	4100	270	< 1.5	**110**	< 1	46	39	62
		20692	12000	< 0.8	< 5	63	< 0.5	< 0.8	4000	38	7	77	14000	15	3000	190	< 1.5	**98**	< 1	38	30	43
	10 - 20 cm	20693	14000	< 0.8	6	77	< 0.5	< 0.8	4000	42	8	76	17000	13	3900	270	< 1.5	**94**	< 1	43	37	49
		20694	12000	< 0.8	7	66	< 0.5	< 0.8	3500	39	8	80	16000	12	3700	250	< 1.5	**100**	< 1	34	33	42
5037975 Woodbine Ave. (back yard)	0 - 5 cm	20695	10000	< 0.8	< 5	57	< 0.5	< 0.8	5100	35	9	76	14000	20	3000	260	< 1.5	**93**	< 1	43	32	45
		20696	8300	< 0.8	< 5	50	< 0.5	< 0.8	4100	30	8	72	13000	24	2700	230	< 1.5	**95**	**2**	29	27	53
	5 - 10 cm	20697	8700	< 0.8	< 5	48	< 0.5	< 0.8	4200	28	7	74	13000	22	2700	220	< 1.5	**88**	**2**	31	27	44
		20698	8600	< 0.8	6	50	< 0.5	< 0.8	4100	28	7	73	13000	22	2700	220	< 1.5	**90**	< 1	32	27	46
	10 - 20 cm	20699	8700	< 0.8	5	54	< 0.5	< 0.8	5600	29	8	66	13000	20	2800	300	< 1.5	**79**	< 1	35	28	42
		20700	8700	< 0.8	5	60	< 0.5	< 0.8	6900	28	8	66	13000	21	2800	330	< 1.5	**74**	< 1	38	27	46
Community of Sudbury (South)																						
5037929 Algonquin Rd. (front yard)	0 - 5 cm	18906	12000	< 0.8	< 5	40	< 0.5	< 0.8	5100	32	6	75	13000	15	2600	200	< 1.5	**74**	< 1	46	30	32
		18907	12000	< 0.8	< 5	42	< 0.5	< 0.8	4900	32	6	67	13000	13	2600	190	< 1.5	**71**	< 1	45	31	51
	5 - 10 cm	18908	12000	< 0.8	< 5	45	< 0.5	< 0.8	4900	34	5	32	10000	10	2700	190	< 1.5	37	< 1	46	30	26
		18909	12000	< 0.8	< 5	38	< 0.5	< 0.8	4300	30	5	33	13000	8	2500	190	< 1.5	38	< 1	42	30	23
	10 - 20 cm	18910	12000	< 0.8	< 5	47	< 0.5	< 0.8	3800	29	6	48	14000	13	2500	170	< 1.5	**53**	< 1	39	30	27
		18911	11000	< 0.8	< 5	43	< 0.5	< 0.8	3500	29	6	43	15000	8	2500	160	< 1.5	**46**	< 1	34	31	23
5037928 Cavendish Ct. (back yard)	0 - 5 cm	18900	9600	< 0.8	< 5	36	< 0.5	< 0.8	3800	27	4	43	11000	9	2400	130	< 1.5	**50**	< 1	29	25	19
		18901	8600	< 0.8	< 5	33	< 0.5	< 0.8	3100	24	4	40	10000	9	2300	120	< 1.5	**48**	< 1	21	22	17
	5 - 10 cm	18902	7900	< 0.8	< 5	27	< 0.5	< 0.8	2200	23	4	31	11000	6	2300	120	< 1.5	36	< 1	19	22	12
		18903	8800	< 0.8	< 5	30	< 0.5	< 0.8	2700	25	4	29	11000	6	2500	130	< 1.5	35	< 1	23	25	14
	10 - 20 cm	18904	10000	< 0.8	< 5	45	< 0.5	< 0.8	2900	26	4	37	12000	6	2500	130	< 1.5	41	< 1	29	28	11
		18905	12000	< 0.8	< 5	52	< 0.5	< 0.8	3300	29	4	31	13000	6	2800	150	< 1.5	35	< 1	35	30	13
5037941 Copper St. (front yard)	0 - 5 cm	18976	9300	< 0.8	< 5	45	< 0.5	< 0.8	5600	41	8	**110**	13000	13	3200	200	< 1.5	**130**	1	37	27	34
		18977	9200	< 0.8	< 5	45	< 0.5	< 0.8	5500	40	9	**110**	13000	13	3200	210	< 1.5	**140**	1	36	28	34
	5 - 10 cm	18978	9100	< 0.8	< 5	44	< 0.5	< 0.8	4700	34	7	58	14000	8	3700	210	< 1.5	**63**	< 1	33	29	27
		18979	10000	< 0.8	< 5	54	< 0.5	< 0.8	4600	37	8	65	16000	8	4100	230	< 1.5	**72**	< 1	32	31	29
	10 - 20 cm	18980	10000	< 0.8	< 5	57	< 0.5	< 0.8	4600	37	9	73	17000	8	4500	230	< 1.5	**75**	< 1	35	33	29
		18981	11000	< 0.8	< 5	58	< 0.5	< 0.8	5300	37	9	67	17000	8	4800	240	< 1.5	**74**	< 1	37	34	28
5037944 Cranbrook Cr. (front yard)	0 - 5 cm	18994	9800	< 0.8	8	54	< 0.5	1.0	5900	39	17	**450**	18000	41	3600	160	< 1.5	**420**	**3**	33	28	48
		18995	11000	< 0.8	7	61	< 0.5	1.0	6300	39	15	**410**	18000	41	3800	190	< 1.5	**360**	**3**	37	30	56

Guideline	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	18996	7500	< 0.8	8	40	< 0.5	< 0.8	2500	25	10	**170**	13000	12	2100	160	< 1.5	**<u>170</u>**	1	21	24	33
		18997	8000	< 0.8	9	42	< 0.5	< 0.8	2900	25	8	**120**	13000	10	2100	150	< 1.5	**140**	< 1	27	26	31
	10 - 20 cm	18998	7200	< 0.8	< 5	34	< 0.5	< 0.8	2400	21	5	50	11000	5	2100	140	< 1.5	**67**	< 1	25	23	23
		18999	9800	< 0.8	5	49	< 0.5	< 0.8	3200	26	5	59	12000	5	2400	170	< 1.5	**77**	< 1	32	27	26
5037931 Culver Cr. (front yard)	0 - 5 cm	18918	9000	**1.2**	< 5	38	< 0.5	< 0.8	3400	30	7	**120**	15000	43	2600	170	< 1.5	**84**	1	33	27	43
		18919	9600	< 0.8	6	39	< 0.5	< 0.8	3600	31	6	**100**	16000	53	2600	180	< 1.5	**70**	< 1	33	28	63
	5 - 10 cm	18920	11000	< 0.8	< 5	42	< 0.5	< 0.8	3700	29	5	68	14000	16	2500	160	< 1.5	**55**	< 1	38	30	31
		18921	13000	< 0.8	< 5	59	< 0.5	< 0.8	4200	32	6	71	15000	22	2600	170	< 1.5	**56**	< 1	43	33	34
	10 - 20 cm	18922	11000	< 0.8	< 5	52	< 0.5	< 0.8	3400	28	5	55	12000	11	2300	160	< 1.5	**49**	< 1	39	28	24
		18923	12000	< 0.8	6	59	< 0.5	< 0.8	3500	29	7	75	13000	15	2400	170	< 1.5	**68**	< 1	38	29	26
5037940 Delwood Ct. (front yard)	0 - 5 cm	18970	8100	< 0.8	7	36	< 0.5	1.0	4500	30	13	**<u>340</u>**	13000	31	2500	200	< 1.5	**<u>290</u>**	**2**	34	30	43
		18971	8400	< 0.8	6	37	< 0.5	**1.1**	5300	30	14	**<u>390</u>**	14000	39	2900	200	< 1.5	**<u>340</u>**	**2**	34	29	51
	5 - 10 cm	18972	8500	< 0.8	< 5	28	< 0.5	< 0.8	4600	25	6	78	13000	10	2800	180	< 1.5	**90**	< 1	35	29	22
		18973	9800	< 0.8	< 5	43	< 0.5	< 0.8	6000	29	8	**93**	13000	14	2900	210	< 1.5	**110**	< 1	41	32	28
	10 - 20 cm	18974	5200	< 0.8	< 5	16	< 0.5	< 0.8	2100	17	4	23	9200	4	2200	120	< 1.5	29	< 1	18	19	14
		18975	5200	< 0.8	< 5	17	< 0.5	< 0.8	2200	17	4	25	8900	4	2100	120	< 1.5	31	< 1	19	19	13
5028035 Ester St. (front yard)	0 - 5 cm	19018	8900	< 0.8	5	40	< 0.5	< 0.8	3400	28	6	51	13000	10	3100	180	< 1.5	**60**	< 1	27	27	27
		19019	11000	< 0.8	5	55	< 0.5	< 0.8	4300	33	7	70	15000	12	3600	220	< 1.5	**78**	< 1	36	31	33
	5 - 10 cm	19020	7700	< 0.8	< 5	39	< 0.5	< 0.8	2500	26	6	38	11000	7	2200	160	< 1.5	**44**	< 1	21	27	26
		19021	8200	< 0.8	8	42	< 0.5	< 0.8	2700	28	6	40	12000	7	2500	170	< 1.5	**46**	1	24	27	25
	10 - 20 cm	19022	10000	< 0.8	< 5	39	< 0.5	< 0.8	3900	30	5	36	13000	6	2600	180	< 1.5	**46**	< 1	41	30	20
		19023	8600	< 0.8	< 5	32	< 0.5	< 0.8	3100	26	5	35	12000	6	2400	160	< 1.5	**47**	< 1	28	26	20
5028074 Gennings St. (back yard)	0 - 5 cm	19144	9600	< 0.8	8	44	< 0.5	< 0.8	2900	27	10	**180**	15000	25	2200	160	< 1.5	**<u>200</u>**	**2**	24	28	40
		19145	8700	< 0.8	10	38	< 0.5	< 0.8	2500	24	10	**190**	14000	21	2000	150	< 1.5	**<u>200</u>**	**2**	19	26	36
	5 - 10 cm	19146	8600	< 0.8	8	36	< 0.5	< 0.8	1800	24	7	**110**	14000	12	2300	130	< 1.5	**110**	1	13	27	35
		19147	10000	< 0.8	9	51	< 0.5	< 0.8	2600	26	8	**140**	15000	15	2200	150	< 1.5	**150**	1	25	28	35
	10 - 20 cm	19148	10000	< 0.8	7	46	< 0.5	< 0.8	2500	25	7	**110**	14000	12	2000	140	< 1.5	**120**	< 1	26	27	32
		19149	11000	< 0.8	6	52	< 0.5	< 0.8	2500	26	7	**100**	15000	11	2200	150	< 1.5	**100**	< 1	27	27	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037930 Greenvalley Dr. (back yard)	0 - 5 cm	18912	9000	< 0.8	< 5	50	< 0.5	< 0.8	4800	27	7	**100**	13000	22	2600	210	2.0	**95**	1	35	26	50
		18913	8800	< 0.8	5	49	< 0.5	< 0.8	4600	26	7	**100**	13000	21	2500	190	< 1.5	**110**	< 1	36	26	46
	5 - 10 cm	18914	6900	< 0.8	< 5	33	< 0.5	< 0.8	2600	21	5	60	10000	10	2000	140	< 1.5	**63**	< 1	20	22	23
		18915	8800	< 0.8	< 5	42	< 0.5	< 0.8	3700	23	5	55	12000	14	2300	160	< 1.5	**61**	< 1	33	26	25
	10 - 20 cm	18916	9000	< 0.8	6	36	< 0.5	< 0.8	3000	23	5	54	11000	7	2000	120	< 1.5	**58**	< 1	29	25	16
		18917	8500	< 0.8	< 5	34	< 0.5	< 0.8	3000	23	5	42	11000	6	2200	130	< 1.5	**52**	< 1	29	25	15
5028034 Harrison Dr. (front yard)	0 - 5 cm	19012	14000	**1.6**	6	86	< 0.5	< 0.8	4700	49	9	**100**	17000	16	4200	220	**6.4**	**110**	< 1	42	36	39
		19013	11000	< 0.8	8	59	< 0.5	< 0.8	3800	48	9	**180**	16000	38	3300	180	< 1.5	**140**	< 1	27	29	58
	5 - 10 cm	19014	15000	< 0.8	7	93	< 0.5	< 0.8	4100	52	9	**100**	19000	14	4700	210	< 1.5	**85**	< 1	38	38	34
		19015	16000	< 0.8	6	74	< 0.5	< 0.8	3900	46	9	**98**	19000	13	4000	190	1.7	**90**	< 1	38	38	35
	10 - 20 cm	19016	13000	< 0.8	6	48	< 0.5	< 0.8	3700	40	8	**110**	16000	14	2900	170	< 1.5	**100**	< 1	35	34	34
		19017	12000	< 0.8	6	42	< 0.5	< 0.8	3100	36	6	76	16000	11	2800	150	**21**	**61**	< 1	30	32	32
5028038 Jupiter Ct. (back yard)	0 - 5 cm	19036	8700	< 0.8	< 5	29	< 0.5	< 0.8	4200	24	5	84	11000	11	2000	150	< 1.5	**79**	1	33	25	20
		19037	9300	< 0.8	< 5	33	< 0.5	< 0.8	4900	27	5	**93**	12000	12	2200	180	< 1.5	**100**	< 1	39	28	20
	5 - 10 cm	19038	11000	< 0.8	< 5	37	< 0.5	< 0.8	4100	29	5	50	14000	7	2400	240	< 1.5	**42**	< 1	41	30	21
		19039	13000	< 0.8	< 5	50	< 0.5	< 0.8	4800	34	6	53	15000	8	2700	260	< 1.5	**51**	< 1	46	33	23
	10 - 20 cm	19040	9700	< 0.8	< 5	41	< 0.5	< 0.8	4800	35	5	22	14000	4	2900	230	< 1.5	23	< 1	44	32	15
		19041	12000	< 0.8	< 5	52	< 0.5	< 0.8	4500	35	6	38	15000	5	3100	220	< 1.5	33	< 1	43	34	19
5037934 Kaireen St. (front yard)	0 - 5 cm	18936	10000	< 0.8	< 5	38	< 0.5	< 0.8	3800	31	8	60	14000	10	3000	170	1.9	**72**	< 1	34	30	23
		18937	11000	< 0.8	< 5	39	< 0.5	< 0.8	4300	32	7	54	15000	10	3000	180	< 1.5	**65**	< 1	39	32	23
	5 - 10 cm	18938	11000	< 0.8	< 5	34	< 0.5	< 0.8	3200	32	9	57	15000	9	2900	170	< 1.5	**67**	< 1	32	32	23
		18939	10000	< 0.8	< 5	30	< 0.5	< 0.8	3200	30	7	39	15000	7	2800	160	< 1.5	**48**	< 1	31	32	18
5028075 Kirkwood Dr. (back yard)	0 - 5 cm	19150	10000	< 0.8	< 5	56	< 0.5	< 0.8	4200	32	8	76	14000	13	2900	250	< 1.5	**82**	1	33	29	31
		19151	9400	< 0.8	< 5	51	< 0.5	< 0.8	3900	29	7	73	13000	12	2600	240	< 1.5	**75**	< 1	31	27	31
	5 - 10 cm	19152	9400	< 0.8	< 5	49	< 0.5	< 0.8	2800	31	8	57	15000	10	3100	240	< 1.5	**62**	< 1	23	28	27
		19153	9800	< 0.8	< 5	50	< 0.5	< 0.8	3000	32	7	52	15000	9	3100	240	< 1.5	**53**	< 1	27	29	28
	10 - 20 cm	19154	10000	< 0.8	< 5	48	< 0.5	< 0.8	3300	32	8	57	16000	8	3400	210	< 1.5	**64**	< 1	29	30	25
		19155	14000	< 0.8	< 5	66	< 0.5	< 0.8	4400	38	9	53	18000	8	3700	250	< 1.5	**61**	< 1	43	37	29

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028076 Lakewood Dr. (side yard)	0 - 5 cm	19162	10000	< 0.8	< 5	39	< 0.5	< 0.8	3300	29	7	35	14000	7	3100	190	< 1.5	**53**	< 1	32	30	25
		19163	11000	< 0.8	5	43	< 0.5	< 0.8	3900	30	7	36	14000	7	3100	200	< 1.5	**51**	< 1	37	32	26
	5 - 10 cm	19164	11000	< 0.8	< 5	47	< 0.5	< 0.8	3600	32	7	31	15000	6	3200	190	< 1.5	**44**	< 1	36	33	25
		19165	11000	< 0.8	< 5	48	< 0.5	< 0.8	3700	32	7	38	15000	6	3300	200	< 1.5	**49**	< 1	36	34	27
	10 - 20 cm	19166	10000	< 0.8	< 5	44	< 0.5	< 0.8	3100	30	9	47	16000	7	3400	200	< 1.5	**59**	< 1	29	33	31
		19167	12000	< 0.8	< 5	46	< 0.5	< 0.8	3400	32	8	44	17000	7	3300	200	< 1.5	**56**	< 1	34	34	29
5037936 Loach's Rd. (front yard)	0 - 5 cm	18946	16000	< 0.8	6	85	< 0.5	< 0.8	5500	39	9	**150**	19000	22	3400	280	< 1.5	**<u>160</u>**	**2**	42	37	41
		18947	14000	< 0.8	< 5	68	< 0.5	< 0.8	5300	33	10	**160**	17000	23	3100	260	< 1.5	**<u>160</u>**	**2**	40	34	39
	5 - 10 cm	18948	13000	< 0.8	< 5	50	< 0.5	< 0.8	4600	32	6	73	15000	11	3000	200	2.2	**79**	1	43	33	26
		18949	13000	< 0.8	< 5	52	< 0.5	< 0.8	4500	33	5	58	15000	9	3000	200	< 1.5	**68**	1	45	34	24
	10 - 20 cm	18950	21000	< 0.8	< 5	140	< 0.5	< 0.8	5600	63	10	53	26000	9	7600	360	< 1.5	**63**	< 1	48	49	40
		18951	23000	< 0.8	6	140	< 0.5	< 0.8	5700	65	12	78	27000	12	7800	410	< 1.5	**96**	< 1	54	52	50
5028039 Maki Ave. (front yard)	0 - 5 cm	19042	12000	< 0.8	< 5	52	< 0.5	< 0.8	5800	34	6	53	14000	10	2900	210	< 1.5	**69**	< 1	49	34	33
		19043	12000	< 0.8	< 5	50	< 0.5	< 0.8	5300	35	6	45	14000	9	3000	190	< 1.5	**59**	< 1	46	33	29
	5 - 10 cm	19044	9200	< 0.8	< 5	31	< 0.5	< 0.8	2700	27	8	29	14000	6	2800	140	1.7	43	< 1	26	30	18
		19045	9900	< 0.8	< 5	35	< 0.5	< 0.8	3000	29	7	22	14000	5	2900	150	< 1.5	37	< 1	32	31	20
	10 - 20 cm	19046	9800	< 0.8	6	40	< 0.5	< 0.8	3100	30	14	53	16000	13	3100	160	< 1.5	**75**	< 1	31	31	25
		19047	9600	< 0.8	< 5	39	< 0.5	< 0.8	2800	29	9	34	14000	7	2900	160	< 1.5	**51**	< 1	28	30	19
5037938 Millwood Cr. (front yard)	0 - 5 cm	18958	11000	< 0.8	< 5	48	< 0.5	< 0.8	4500	32	7	**88**	14000	14	3200	210	< 1.5	**88**	< 1	39	30	28
		18959	11000	< 0.8	< 5	49	< 0.5	< 0.8	4700	35	8	**100**	15000	16	3100	220	< 1.5	**110**	1	39	32	35
	5 - 10 cm	18960	13000	< 0.8	< 5	60	< 0.5	< 0.8	4500	37	6	60	15000	11	3300	210	1.6	**70**	< 1	42	32	26
		18961	12000	< 0.8	< 5	59	< 0.5	< 0.8	4400	40	7	75	15000	12	3100	210	< 1.5	**89**	< 1	41	33	32
	10 - 20 cm	18962	8500	< 0.8	< 5	38	< 0.5	< 0.8	3200	30	7	66	12000	10	2600	170	< 1.5	**87**	< 1	30	25	25
		18963	7700	< 0.8	< 5	37	< 0.5	< 0.8	3400	25	5	42	11000	6	2400	150	< 1.5	**55**	< 1	32	26	19
5028037 Moonrock Ave. (back yard)	0 - 5 cm	19030	11000	< 0.8	< 5	43	< 0.5	< 0.8	5800	35	6	49	15000	8	3500	210	< 1.5	**68**	< 1	38	32	23
		19031	12000	< 0.8	< 5	45	< 0.5	< 0.8	6200	36	6	47	15000	8	3700	220	< 1.5	**66**	< 1	44	34	23
	5 - 10 cm	19032	11000	< 0.8	< 5	38	< 0.5	< 0.8	5200	34	6	29	15000	6	3600	200	< 1.5	**44**	< 1	36	32	20
		19033	10000	< 0.8	< 5	38	< 0.5	< 0.8	4900	33	6	27	15000	6	3500	200	< 1.5	42	< 1	35	32	19
	10 - 20 cm	19034	9100	< 0.8	< 5	36	< 0.5	< 0.8	4800	33	6	23	15000	4	3800	200	< 1.5	34	< 1	33	32	19
		19035	10000	< 0.8	< 5	50	< 0.5	< 0.8	6300	38	7	32	16000	6	4700	220	< 1.5	43	< 1	30	32	24

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037933 Muriel Cr. (front yard)	0 - 5 cm	18930	8400	< 0.8	< 5	42	< 0.5	< 0.8	2700	28	7	64	13000	11	2900	160	< 1.5	**63**	< 1	21	26	28
		18931	9700	< 0.8	< 5	46	< 0.5	< 0.8	3400	32	7	66	14000	12	3200	180	1.9	**72**	< 1	28	29	34
	5 - 10 cm	18932	9100	< 0.8	< 5	45	< 0.5	< 0.8	2400	30	8	52	14000	13	3000	180	< 1.5	**56**	< 1	23	28	33
		18933	12000	< 0.8	< 5	55	< 0.5	< 0.8	3900	33	8	47	15000	10	3300	200	< 1.5	**55**	< 1	39	33	26
	10 - 20 cm	18934	10000	< 0.8	< 5	46	< 0.5	< 0.8	3400	35	9	35	16000	7	3500	180	< 1.5	43	< 1	33	33	21
		18935	11000	< 0.8	< 5	53	< 0.5	< 0.8	3300	34	8	40	16000	7	3600	200	< 1.5	**44**	< 1	33	32	23
5028040 Nepahwin Ave. (front yard)	0 - 5 cm	19048	9600	< 0.8	< 5	40	< 0.5	< 0.8	3500	29	6	75	13000	12	3000	160	< 1.5	**76**	< 1	31	28	37
		19049	9500	< 0.8	6	38	< 0.5	< 0.8	3300	29	8	64	12000	8	3200	160	< 1.5	**80**	< 1	20	27	29
	5 - 10 cm	19050	9300	< 0.8	< 5	34	< 0.5	< 0.8	3300	29	6	38	12000	5	2600	160	< 1.5	**45**	< 1	33	30	32
		19051	9600	< 0.8	8	35	< 0.5	< 0.8	3700	29	6	33	13000	5	3000	170	< 1.5	43	< 1	33	30	20
	10 - 20 cm	19052	10000	< 0.8	5	48	< 0.5	< 0.8	3900	34	7	35	14000	5	3400	200	< 1.5	41	< 1	39	32	24
		19053	10000	< 0.8	< 5	46	< 0.5	< 0.8	4500	35	7	41	15000	6	3700	200	< 1.5	**49**	< 1	40	33	22
5028077 Ramsey Lake Rd. (front yard)	0 - 5 cm	19168	14000	< 0.8	7	73	< 0.5	< 0.8	5300	40	9	**120**	18000	16	3800	280	< 1.5	**120**	1	42	38	38
		19169	14000	< 0.8	7	81	< 0.5	< 0.8	4700	41	9	**120**	19000	18	4100	280	< 1.5	**120**	1	43	38	40
	5 - 10 cm	19170	15000	< 0.8	5	82	< 0.5	< 0.8	4700	43	9	**94**	20000	13	4500	270	< 1.5	**95**	< 1	44	40	35
		19171	17000	< 0.8	5	94	< 0.5	< 0.8	4700	48	9	**96**	22000	15	5200	310	< 1.5	**100**	< 1	48	43	41
	10 - 20 cm	19172	14000	< 0.8	< 5	77	< 0.5	< 0.8	4400	40	9	77	20000	12	4300	270	< 1.5	**98**	< 1	43	38	34
		19173	14000	< 0.8	< 5	74	< 0.5	< 0.8	4000	40	8	69	19000	18	4200	280	< 1.5	**82**	< 1	40	38	37
5037942 Robinson Dr. (front yard)	0 - 5 cm	18982	12000	< 0.8	5	49	< 0.5	< 0.8	4400	30	7	**92**	14000	12	2500	220	< 1.5	**110**	< 1	41	30	31
		18983	12000	< 0.8	< 5	56	< 0.5	< 0.8	4400	34	7	**92**	14000	11	2600	230	< 1.5	**110**	< 1	41	30	33
	5 - 10 cm	18984	11000	< 0.8	5	40	< 0.5	< 0.8	3200	29	7	**87**	14000	10	2500	200	< 1.5	**94**	< 1	32	29	30
		18985	12000	< 0.8	5	54	< 0.5	< 0.8	3800	33	7	75	15000	10	2800	220	< 1.5	**94**	< 1	39	32	34
	10 - 20 cm	18986	13000	< 0.8	6	58	< 0.5	< 0.8	4000	35	10	**120**	16000	12	3100	230	< 1.5	**130**	< 1	41	33	37
		18987	11000	< 0.8	6	51	< 0.5	< 0.8	3400	34	10	**120**	16000	13	3200	210	< 1.5	**130**	< 1	32	32	39
5037939 Salo Rd. (front yard)	0 - 5 cm	18964	16000	< 0.8	**30**	110	< 0.5	**1.6**	7200	46	**35**	**870**	27000	**220**	3500	200	< 1.5	**1100**	**4**	43	39	130
		18965	15000	< 0.8	**24**	100	< 0.5	**2.0**	13000	43	**40**	**1100**	27000	**180**	4300	220	< 1.5	**1200**	**6**	46	34	120
	5 - 10 cm	18966	14000	< 0.8	**32**	78	< 0.5	< 0.8	4100	38	**25**	**770**	24000	**230**	2600	150	< 1.5	**740**	**4**	37	36	75
		18967	14000	1.0	**34**	130	< 0.5	< 0.8	4500	37	**29**	**880**	25000	**270**	2400	170	< 1.5	**880**	**5**	38	36	120
	10 - 20 cm	18968	15000	< 0.8	15	76	< 0.5	< 0.8	3300	33	11	**340**	20000	51	2400	160	< 1.5	**210**	**2**	41	38	47
		18969	15000	< 0.8	**19**	67	< 0.5	< 0.8	3300	34	10	**290**	19000	76	2400	140	< 1.5	**210**	**2**	41	38	37

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037943 Southview Dr. (back yard)	0 - 5 cm	18988	8800	< 0.8	< 5	34	< 0.5	< 0.8	3400	28	7	56	13000	6	2900	170	< 1.5	**57**	< 1	34	29	19
		18989	6800	< 0.8	< 5	29	< 0.5	< 0.8	2000	25	6	59	12000	7	2700	140	< 1.5	**60**	< 1	15	23	20
	5 - 10 cm	18990	7600	< 0.8	< 5	31	< 0.5	< 0.8	3300	27	6	25	13000	4	3200	150	< 1.5	28	< 1	28	28	17
		18991	8300	< 0.8	< 5	33	< 0.5	< 0.8	3500	28	6	25	13000	4	3200	160	< 1.5	27	< 1	32	28	17
	10 - 20 cm	18992	7500	< 0.8	< 5	37	< 0.5	< 0.8	3200	29	7	25	14000	3	3600	170	< 1.5	26	< 1	29	28	18
		18993	7100	< 0.8	< 5	35	< 0.5	< 0.8	3400	29	6	25	14000	3	3600	180	< 1.5	25	< 1	31	28	18
5028036 St. Charles Lake Rd. (back yard)	0 - 5 cm	19024	14000	< 0.8	< 5	73	< 0.5	< 0.8	4500	39	6	39	15000	8	3500	210	< 1.5	**51**	< 1	49	35	25
		19025	15000	< 0.8	< 5	75	< 0.5	< 0.8	4700	39	6	42	16000	8	3700	230	< 1.5	**49**	< 1	48	37	26
	5 - 10 cm	19026	19000	< 0.8	7	120	< 0.5	< 0.8	4600	52	17	**200**	23000	33	5600	380	< 1.5	**240**	1	44	42	56
		19027	22000	< 0.8	9	150	< 0.5	< 0.8	4600	**75**	16	**220**	26000	110	5800	400	< 1.5	**220**	1	50	48	59
	10 - 20 cm	19028	17000	< 0.8	8	110	< 0.5	< 0.8	4000	45	12	**190**	20000	17	4400	310	< 1.5	**140**	1	45	40	47
		19029	16000	< 0.8	6	92	< 0.5	< 0.8	3300	44	11	**130**	20000	19	4300	280	< 1.5	**120**	< 1	39	38	40
5037932 Sweetberry Dr. (front yard)	0 - 5 cm	18924	11000	< 0.8	< 5	40	< 0.5	< 0.8	5600	34	5	25	13000	6	2800	200	1.9	34	< 1	48	31	18
		18925	10000	< 0.8	< 5	34	< 0.5	< 0.8	5100	29	5	26	13000	7	2700	190	< 1.5	36	< 1	44	29	17
	5 - 10 cm	18926	12000	< 0.8	< 5	50	< 0.5	< 0.8	6100	39	5	29	15000	7	3500	230	< 1.5	42	< 1	52	35	24
		18927	8400	< 0.8	< 5	31	< 0.5	< 0.8	3600	27	4	21	11000	5	2600	160	< 1.5	31	< 1	28	26	15
	10 - 20 cm	18928	11000	< 0.8	< 5	69	< 0.5	< 0.8	4600	38	7	46	16000	7	4500	220	< 1.5	**56**	< 1	29	32	27
		18929	9600	< 0.8	< 5	58	< 0.5	< 0.8	4000	35	7	43	15000	7	4100	220	< 1.5	**50**	< 1	21	28	25
5037935 Virginia Dr. (front yard)	0 - 5 cm	18940	8900	< 0.8	< 5	33	< 0.5	< 0.8	3800	31	7	**100**	14000	17	3000	200	< 1.5	**87**	1	32	30	26
		18941	9500	< 0.8	< 5	33	< 0.5	< 0.8	4000	32	7	85	15000	14	2900	180	< 1.5	**76**	< 1	35	31	24
	5 - 10 cm	18942	10000	< 0.8	< 5	27	< 0.5	< 0.8	2800	28	6	31	15000	5	2600	130	< 1.5	31	< 1	30	32	17
		18943	12000	< 0.8	< 5	37	< 0.5	< 0.8	3500	31	6	29	15000	5	2800	150	< 1.5	31	1	37	34	18
	10 - 20 cm	18944	12000	< 0.8	< 5	52	< 0.5	< 0.8	4000	35	7	25	17000	4	3200	180	< 1.5	30	1	41	36	18
		18945	10000	< 0.8	< 5	32	< 0.5	< 0.8	3400	32	7	25	16000	4	3300	170	< 1.5	29	< 1	34	33	18
5037946 Walford Rd. (back yard)	0 - 5 cm	19006	15000	< 0.8	12	110	< 0.5	1.0	7000	51	**26**	**560**	25000	120	5200	310	< 1.5	**470**	**3**	49	38	150
		19007	13000	< 0.8	11	87	< 0.5	1.0	6200	47	**23**	**480**	24000	**140**	4800	270	< 1.5	**420**	**3**	40	35	140
	5 - 10 cm	19008	20000	< 0.8	7	140	< 0.5	< 0.8	6600	63	17	**180**	26000	29	7200	340	< 1.5	**190**	**2**	51	46	110
		19009	19000	< 0.8	8	130	< 0.5	< 0.8	6200	59	17	**240**	25000	30	6700	310	< 1.5	**210**	1	49	44	87
	10 - 20 cm	19010	22000	< 0.8	6	140	< 0.5	< 0.8	8000	63	16	**150**	28000	20	8300	330	< 1.5	**160**	< 1	54	47	110
		19011	23000	< 0.8	6	160	0.5	< 0.8	7800	65	15	**150**	28000	20	8300	340	< 1.5	**160**	< 1	57	50	88

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037937 Windle Dr. (front yard)	0 - 5 cm	18952	12000	< 0.8	13	61	< 0.5	0.9	4000	50	19	**340**	18000	53	3100	190	< 1.5	**400**	**2**	41	31	43
		18953	12000	< 0.8	11	56	< 0.5	< 0.8	3800	40	15	**270**	17000	42	3100	190	< 1.5	**310**	1	38	31	41
	5 - 10 cm	18954	14000	< 0.8	5	73	< 0.5	< 0.8	3500	39	8	**96**	16000	11	3900	210	< 1.5	**120**	< 1	42	34	29
		18955	14000	< 0.8	< 5	70	< 0.5	< 0.8	3300	38	7	64	17000	8	3900	210	< 1.5	**94**	< 1	37	34	29
	10 - 20 cm	18956	19000	< 0.8	< 5	120	< 0.5	< 0.8	4200	55	8	38	22000	7	6000	270	< 1.5	**52**	< 1	50	44	29
		18957	18000	< 0.8	< 5	120	< 0.5	< 0.8	4100	57	9	44	23000	8	6500	280	< 1.5	**61**	< 1	44	44	36
5028078 Woodlawn Rd. (front yard)	0 - 5 cm	19156	11000	< 0.8	< 5	54	< 0.5	< 0.8	4700	31	8	**100**	14000	15	2800	180	< 1.5	**110**	< 1	39	31	28
		19157	12000	< 0.8	< 5	59	< 0.5	< 0.8	4900	32	7	**88**	14000	15	2900	180	< 1.5	**96**	< 1	40	31	28
	5 - 10 cm	19158	13000	< 0.8	< 5	51	< 0.5	< 0.8	4100	33	5	50	14000	8	2500	180	< 1.5	**60**	< 1	40	32	24
		19159	13000	< 0.8	< 5	53	< 0.5	< 0.8	4200	33	6	52	15000	9	2600	180	< 1.5	**69**	< 1	41	32	23
	10 - 20 cm	19160	12000	< 0.8	< 5	50	< 0.5	< 0.8	4100	32	6	35	14000	6	2600	200	< 1.5	**54**	< 1	41	33	25
		19161	10000	< 0.8	< 5	37	< 0.5	< 0.8	3500	29	6	28	13000	5	2600	190	< 1.5	**49**	< 1	35	30	22
5037945 Yale St (front yard)	0 - 5 cm	19000	18000	< 0.8	7	100	< 0.5	< 0.8	6300	48	15	**270**	21000	29	4700	210	< 1.5	**290**	**2**	47	40	52
		19001	16000	< 0.8	8	99	< 0.5	< 0.8	5700	47	15	**320**	20000	33	4300	220	< 1.5	**310**	**2**	44	37	62
	5 - 10 cm	19002	12000	< 0.8	< 5	41	< 0.5	< 0.8	4000	33	6	56	15000	5	3500	170	< 1.5	**62**	< 1	40	33	22
		19003	13000	< 0.8	< 5	55	< 0.5	< 0.8	4300	38	7	58	16000	5	3500	180	< 1.5	**83**	< 1	43	36	25
	10 - 20 cm	19004	13000	< 0.8	< 5	66	< 0.5	< 0.8	4200	37	7	52	16000	6	4000	200	< 1.5	**79**	< 1	42	35	23
		19005	14000	< 0.8	< 5	73	< 0.5	< 0.8	3900	41	8	69	17000	8	4500	220	< 1.5	**97**	< 1	40	35	29

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Coniston																				
5037481 3rd Ave.	15442	beets	78	0.2 <w	0.2 <w	60	0.3 <t	0.5 <w	0.2 <w	15	140	0.5 <w	2400	30	0.2 <w	12	0.2 <w	11	0.5 <w	26
	15440	carrot	81	0.2 <w	0.2 <w	22	0.1 <w	0.6 <t	0.2 <w	8.1	140	0.5 <w	1500	11	0.2 <w	6.9	0.2 <w	12	0.5 <w	20
	15443	lettuce	180	0.2 <w	0.6 <t	16	0.6	0.9 <t	0.4 <t	19	280	1.5 <t	5000	30	0.7 <t	49	0.6 <t	40	0.5 <w	41
	15441	tomato	5 <w	0.2 <w	0.2 <w	1.6 <t	0.1 <w	1.1 <t	0.2 <w	4.7	25	0.5 <w	760	5.2	0.5 <t	1.8 <t	0.2 <w	1.9 <t	0.5 <w	14
5037478 4th Ave.	15423	beets	49	0.2 <w	0.2 <w	7.5	0.1 <w	0.5 <w	0.2 <w	7.6	85	0.5 <w	2500	8.8	0.2 <w	2.3 <t	0.2 <w	7.4	0.5 <w	30
	15422	carrot	55	0.2 <w	0.2 <w	3.6 <t	0.1 <w	0.5 <w	0.2 <w	4.3	110	0.5 <w	1400	8.7	0.2 <w	2.1 <t	0.2 <w	8.6	0.5 <w	21
	15421*	cucumber	6 <t	0.2 <w	0.3 <t	0.8 <t	0.1 <w	0.5 <w	0.2 <w	8	58	110	3200	11	1.5	3.2	0.2 <w	8.8	0.5 <w	33
	15425	potato	11 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	5.3	33	0.5 <w	1200	5.8	0.5 <t	1.2 <t	0.2 <w	0.9 <t	0.5 <w	14
	15420	Swiss chard	230	0.2 <w	0.2 <w	26	0.6	1.3 <t	0.4 <t	14	290	1.1 <t	12000	59	1.3	3.4	0.2 <w	41	0.5 <w	94
	15424	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	3.6	26	0.5 <w	1200	11	0.3 <t	0.9 <t	0.2 <w	2.5	0.5 <w	18
5037501 Allan St.	15630	beets	45	0.2 <w	0.2 <w	17	0.3 <t	0.5 <w	0.2 <w	11	87	0.5 <w	2300	14	0.6 <t	26	0.2 <w	9.2	0.5 <w	56
	15629	carrot	38	0.2 <w	0.2 <w	16	0.1 <w	0.5 <w	0.3 <t	4.8	100	0.5 <w	1200	7.2	0.7 <t	9.7	0.2 <w	18	0.5 <w	15
	15628	Swiss chard	68	0.2 <w	0.2 <w	59	0.8	0.8 <t	0.4 <t	18	120	1 <t	8500	33	1.7	35	1.2	29	0.5 <w	300
	15627	tomato	5 <w	0.2 <w	0.2 <w	0.9 <t	0.2 <t	0.5 <w	0.2 <w	5	24 <t	0.5 <w	1200	7.3	0.7 <t	20	0.3 <t	2.3 <t	0.5 <w	22
5037503 Allan St.	15647	lettuce	140	0.2 <w	0.5 <t	7.8	0.3 <t	0.5 <w	0.2 <w	18	250	0.5 <w	2700	17	3.5	5.8	0.3 <t	29	0.5 <w	40
	15645	tomato	5 <w	0.2 <w	0.2 <w	0.8 <t	0.2 <t	0.5 <w	0.2 <w	5.2	17 <t	0.5 <w	1600	6.6	0.6 <t	4.3	0.2 <w	2 <t	0.5 <w	22
	15646	yellow beans	5 <w	0.2 <w	0.2 <w	0.8 <t	0.1 <w	0.5 <w	0.2 <w	5.2	46	0.5 <w	1800	5.8	12	7.3	0.2 <w	3.6	0.5 <w	21
5037506 Caruso St.	15656	carrot	63	0.2 <w	0.2 <w	6.2	0.2 <t	0.5 <w	0.2 <w	5.7	88	0.5 <w	1400	5.1	0.2 <w	4	0.2 <w	7.9	0.5 <w	17
	15658†	lettuce	340	0.2 <w	0.4 <t	10	0.4 <t	1.6 <t	0.3 <t	17	520	0.5 <w	4200	28	3.4	12	0.2 <w	28	1 <t	46
	15657	tomato	9 <t	0.2 <w	0.2 <w	1.2 <t	0.1 <w	1.2 <t	0.2 <w	6.3	26	0.5 <w	1500	12	0.7 <t	2.9	0.2 <w	2.2 <t	0.5 <w	15
5037509 Caruso St.	15671	carrot	14 <t	0.2 <w	0.2 <w	22	0.2 <t	0.5 <w	0.2 <w	6.4	51	0.5 <w	1300	5.7	0.2 <w	5.3	0.2 <w	12	0.5 <w	19
	15674	cucumber	14 <t	0.2 <w	0.3 <t	5.1	0.1 <w	0.5 <w	0.2 <w	9.3	56	0.5	3900	9.1	1.3	9.2	0.2 <w	13	0.5 <w	42
	15673	potato	13 <t	0.2 <w	0.2 <w	0.7 <t	0.1 <w	0.5 <w	0.2 <w	7.3	36	0.5 <w	1200	6	0.4 <t	3.7	0.2 <w	1 <t	0.5 <w	19
	15672	tomato	5 <w	0.2 <w	0.2 <w	1.4 <t	0.3 <t	0.7 <t	0.2 <w	7.9	45	0.5 <w	1800	13	0.4 <t	6.5	0.2 <w	3.1	0.5 <w	25
5037473 East St.	15399	Swiss chard	51	0.2 <w	0.2 <w	43	0.3 <t	0.6 <t	0.2 <w	12	89	0.5 <w	8100	17	0.2 <w	10	0.2 <w	37	0.5 <w	77
	15398	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.3 <t	3.8	20 <t	0.5 <w	1100	5.7	0.5 <t	8	0.4 <t	1.5 <t	0.5 <w	9
5037475 East St.	15413	carrot	57	0.2 <w	0.2 <w	9.7	0.1 <w	0.5 <w	0.2 <w	4.8	72	1.1 <t	1400	8	0.2 <w	1.5 <t	0.2 <w	9.4	0.5 <w	16
	15412	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	1.9 <t	16 <t	0.5 <w	540	3.8	0.2 <w	0.5 <w	0.2 <w	1.2 <t	0.5 <w	7

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037487 Edward St.	15471	carrot	43	0.2 <w	0.2 <w	7	0.1 <w	0.5 <w	0.2 <w	5	62	0.7 <t	1500	4.8	0.3 <t	6.4	0.2 <w	7	0.5 <w	14
	15473*	cucumber	5 <w	0.2 <w	0.3 <t	3.6 <t	0.1 <w	0.5 <w	0.2 <w	8.5	99	9.6	3500	12	2.4	8.2	0.2 <w	9.7	0.5 <w	33
	15472	lettuce	69	0.2 <w	0.8 <t	10	0.6	0.7 <t	0.4 <t	23	130	0.7 <t	5300	21	0.5 <t	11	0.2 <w	27	0.5 <w	30
5037484 First Ave.	15454	cucumber	10 <t	0.2 <w	0.2 <w	12	0.1 <w	0.5 <w	1.4	7.6	68	0.5 <w	3000	17	0.7 <t	24	0.2 <w	14	0.5 <w	26
	15455	potato	12 <t	0.2 <w	0.2 <w	1.8 <t	0.2 <t	0.5 <w	0.4 <t	6.4	34	0.5 <w	840	5.1	0.2 <w	5	0.2 <w	0.6 <t	0.5 <w	13
	15456	tomato	11 <t	0.2 <w	0.2 <w	2 <t	0.2 <t	0.8 <t	0.3 <t	6.5	33	0.5 <w	1100	12	0.4 <t	6.9	0.2 <w	2.6	0.5 <w	12
5037495 Walter Cres.	15517	carrot	30	0.2 <w	0.2 <w	17	0.2 <t	0.5 <w	0.2 <w	4.2	74	0.5 <w	1300	6.4	0.2 <w	3.2	0.2 <w	7.7	0.5 <w	17
	15516	tomato	5 <w	0.2 <w	0.2 <w	1.4 <t	0.2 <t	1 <t	0.3 <t	10	41	0.5 <w	2500	13	0.7 <t	7	0.2 <w	2.6	0.5 <w	28
5037498 Walter Cres.	15534†	beets	32	0.2 <w	0.2 <w	19	0.1 <w	0.5 <w	0.2 <w	7.1	66	0.5 <w	2100	11	0.2 <w	2.4 <t	0.2 <w	6.2	0.5 <w	36
	15533	potato	15 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	4.5	95	0.5 <w	910	3.4	0.4 <t	1.8 <t	0.2 <w	0.7 <t	0.5 <w	9
	15532†	tomato	5 <w	0.2 <w	0.2 <w	0.7 <t	0.1 <w	0.5 <w	0.2 <w	4	16 <t	0.5 <w	1300	6	0.6 <t	1.1 <t	0.2 <w	1.3 <t	0.5 <w	11
5037490 Walter St.	15487	beets	10 <t	0.2 <w	0.2 <w	2 <t	0.2 <t	0.9 <t	0.2 <w	5.9	58	0.8 <t	1900	7.6	0.3 <t	8.2	0.2 <w	4.1	0.5 <w	29
	15488	lettuce	30	0.2 <w	0.6 <t	2.6 <t	0.6	0.6 <t	0.2 <w	24	150	0.5 <w	3600	15	0.4 <t	13	0.2 <w	22	0.5 <w	45
	15486	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	2 <t	19 <t	0.5 <w	550	2.2 <t	0.6 <t	4.8	0.2 <w	1 <t	0.5 <w	6
5037492 Walter St.	15505	cucumber	14 <t	0.2 <w	0.5 <t	2 <t	0.2 <t	0.5 <w	0.2 <w	11	110	0.5 <w	4300	11	3.2	7.9	0.2 <w	5.8	0.5 <w	48
	15509	green beans	5 <w	0.2 <w	0.2 <w	2.9 <t	0.1 <w	0.5 <w	0.2 <w	7.6	49	0.5 <w	2100	13	17	11	0.2 <w	6.3	0.5 <w	33
	15504	lettuce	1100	0.2 <w	1	11	0.2 <t	3.8	1.2	14	1600	1.9 <t	4400	50	1.6	9.5	0.2 <w	16	2.8	23
	15503	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	3.4	36	0.5 <w	1000	5.8	0.4 <t	0.8 <t	0.2 <w	3.3	0.5 <w	9
	15506	zucchini	37	0.2 <w	0.2 <w	2.6 <t	0.2 <t	0.8 <t	0.2 <w	18	160	0.5 <w	3400	12	0.5 <t	9.3	0.2 <w	7.4	0.5 <w	80
5037644 William	15691	tomatoes	5	0.2 <w	0.2 <w	0.7 <t	0.1 <w	0.6 <t	0.2 <t	5.3	90	0.5 <w	2000	12	0.5 <t	27	0.6 <t	2.1	0.5 <w	17
Community of Copper Cliff																				
5037452 Cliff St.	15270	carrot	16 <t	0.2 <w	0.7 <t	10	0.1 <w	0.5 <w	0.2 <w	2.9	21 <t	0.5 <w	370	380	0.2 <w	0.8 <t	3	0.9 <t	0.5 <w	5
	15272	cucumber	300	0.2 <w	0.8 <t	3.7 <t	0.1 <w	0.5 <w	0.2 <w	4.5	110	0.5 <w	1400	21	0.7 <t	0.7 <t	2.8	3	0.5 <w	24
	15274	green beans	7 <t	0.2 <w	0.2 <w	5.6	0.1 <w	0.5 <w	0.4 <t	8.2	70	0.6 <t	2500	13	9.4	23	22	8.2	0.5 <w	27
	15273	tomato	170	0.2 <w	0.2 <w	5	0.1 <w	0.5 <w	0.2 <w	5.4	150	0.5 <w	1500	21	0.9 <t	0.8 <t	17	3.8	0.5 <w	26
	15275	yellow beans	9 <t	0.2 <w	0.2 <w	7.5	0.1 <w	0.5 <w	0.2 <w	8.8	80	1.8 <t	2500	17	6.1	21	10	12	0.5 <w	30
	15271	zucchini	23 <t	0.2 <w	0.2 <w	9.7	0.1 <w	0.5 <w	0.2 <w	2.6	40	0.5 <w	360	370	0.2 <w	0.8 <t	4.8	0.9 <t	0.5 <w	5

<w - no measurable amount. <t - trace amount. All results are in μg/g dry wt. All beryllium (Be) results were less than 0.2 μg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037445 Cobalt St.	15221†	beets	5 <w	0.2 <w	0.6 <t	5.1	0.1 <w	0.5 <w	0.2 <w	6.6	31	0.5 <w	1400	18	0.2 <w	6.6	0.5 <t	2.6	0.5 <w	13
	15222	carrot	7 <t	0.2 <w	0.4 <t	6.3	0.1 <w	0.5 <w	0.2 <w	6.3	33	0.5 <w	1400	16	0.5 <t	7.6	0.5 <t	2.4 <t	0.5 <w	15
	15237	potato	7 <t	0.2 <w	0.2 <w	6.1	0.1 <w	0.5 <w	0.2 <w	6.3	26	0.5 <w	1100	20	0.3 <t	7.5	0.2 <w	5.7	0.5 <w	11
	15220	tomato	5 <w	0.2 <w	0.2 <w	5.6	0.1 <w	0.5 <w	0.2 <w	6.5	35	0.5 <w	1600	18	0.2 <w	8.1	0.2 <w	3.4	0.5 <w	16
5037438 Collins St.	15188*	carrot	100	0.2 <w	0.3 <t	17	0.2 <t	0.7 <t	0.2 <w	14	190	4.3	1500	15	0.2 <w	15	0.5 <t	24	0.5 <w	27
	15186	lettuce	580	0.2 <w	2.5	28	0.7	2.4 <t	1.6	77	1000	23	3200	48	1.1	58	5.3	43	1.6 <t	51
	15187	parsley	620	0.2 <w	1.6	50	0.3 <t	2.3 <t	2	71	1100	38	4300	68	1	52	1.5	48	1.5 <t	56
5037439 Collins St.	15183†	escarole	1600	0.4 <t	9	29	1.2	6.4	3.6	160	2400	28	3800	53	1.7	120	4	35	4.1	83
	15182	Swiss chard	150	0.2 <w	0.8 <t	58	0.4 <t	0.7 <t	0.5 <t	33	230	2.1 <t	6100	12	0.9 <t	22	1.5	27	0.5 <w	45
	15180	tomato	5 <w	0.2 <w	0.2 <w	0.6 <t	0.1 <w	0.5 <w	0.2 <w	4.9	15 <t	0.5 <w	1100	5.9	0.3 <t	2.8	0.2 <w	1.9 <t	0.5 <w	12
	15181	zucchini	5 <w	0.2 <w	0.2 <w	3.5 <t	0.2 <t	0.8 <t	0.2 <w	13	83	0.5 <w	4200	13	1.1	26	0.5 <t	7.9	0.5 <w	84
5037459 Craig St.	15325	basil	82	0.2 <w	1.3	9.1	0.2 <t	0.9 <t	0.9 <t	63	210	0.9 <t	6400	39	0.5 <t	47	1.1	52	0.5 <w	80
	15326†	beets	60	0.2 <w	0.2 <w	24	0.3 <t	0.5 <w	0.2 <w	12	91	1.6 <t	1500	22	0.2 <w	15	0.2 <w	9.7	0.5 <w	29
	15330	cucumber	5 <w	0.2 <w	0.3 <t	1.1 <t	0.1 <w	0.5 <w	0.2 <w	7.5	42	0.5 <w	3200	14	1.1	20	0.3 <t	7.4	0.5 <w	33
	15327	parsley	400	0.2 <w	0.6 <t	15	0.3 <t	1.5 <t	0.7 <t	44	530	3.6	3300	38	2.4	51	0.6 <t	22	0.9 <t	68
	15324	Swiss chard	45	0.2 <w	0.2 <w	16	0.2 <t	0.5 <w	0.3 <t	31	100	1.2 <t	4600	29	0.2 <w	24	0.2 <w	16	0.5 <w	45
	15329	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.2 <w	4.7	16 <t	1.7 <t	790	7.7	0.2 <w	6.2	0.2 <w	1.3 <t	0.5 <w	12
	15328	zucchini	5 <w	0.2 <w	0.2 <w	1.1 <t	0.2 <t	0.8 <t	0.2 <w	22	120	0.5 <w	4400	24	1.1	42	0.4 <t	5.3	0.5 <w	120
5037448 Creighton Rd.	15240	beets	25	0.2 <w	0.2 <w	1.6 <t	0.2 <t	0.5 <w	0.2 <w	7	49	0.5 <w	1300	81	0.4 <t	8.1	0.2 <w	1.5 <t	0.5 <w	17
	15238	carrot	9 <t	0.2 <w	0.2 <w	2.8 <t	0.1 <w	0.5 <w	0.2 <w	6.1	36	0.5 <w	1400	20	1.2	1.5 <t	0.2 <w	2.7	0.5 <w	19
	15242	cucumber	7 <t	0.2 <w	0.6 <t	11	0.2 <t	0.5 <w	0.2 <w	4.9	26	0.5 <w	1100	33	0.2 <w	2.8	0.2 <w	3	0.5 <w	10
	15241	lettuce	18 <t	0.2 <w	0.8 <t	1.2 <t	0.1 <w	0.5 <w	0.2 <w	6.3	41	0.5 <w	1200	63	0.3 <t	7	0.2 <w	1.2 <t	0.5 <w	17
	15239	tomato	6 <t	0.2 <w	0.2 <w	2.6 <t	0.1 <w	0.5 <w	0.2 <w	5.2	32	0.5 <w	1200	18	1.1	1.3 <t	0.2 <w	2.4 <t	0.5 <w	16

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037454 Diorite St.	15293	basil	520	0.2 <w	1.1	6	0.2 <t	1.6 <t	1.1	65	650	1.7 <t	5400	17	0.9 <t	56	1.4	32	1.4 <t	43
	15290	beets	120	0.2 <w	0.2 <w	8.5	0.3 <t	0.6 <t	0.4 <t	27	160	0.5 <w	2700	6.1	0.2 <w	22	0.3 <t	5.6	0.5 <w	29
	15297	Bostonlettuc	1900	0.2 <w	2.1	15	1.7	6	4.9	230	2400	7	5000	35	1.1	180	2.5	27	5.1	51
	15292	carrot	82	0.2 <w	0.2 <w	3.3 <t	0.2 <t	0.5 <w	0.2 <w	10	110	0.8 <t	1600	4.7	0.2 <w	16	0.4 <t	5.2	0.5 <w	14
	15296	cucumber	15 <t	0.2 <w	0.3 <t	1.1 <t	0.1 <w	0.5 <w	0.2 <w	9.3	61	0.5 <w	3300	4.9	2.5	15	0.8 <t	5.8	0.5 <w	24
	15298	parsley	450	0.2 <w	0.4 <t	16	0.4 <t	1.4 <t	0.8 <t	54	610	1.3 <t	3000	13	6.5	53	2.9	17	1.3 <t	40
	15295	Swiss chard	86	0.2 <w	0.2 <w	9.1	0.4 <t	0.5 <w	0.2 <w	26	120	0.5 <w	6300	4.2	0.2 <w	16	0.7 <t	11	0.5 <w	22
	15294	tomato	13 <t	0.2 <w	0.2 <w	0.5 <w	0.3 <t	0.5 <w	0.2 <w	8.4	40	0.5 <w	840	5.9	0.2 <w	5.2	1	1 <t	0.5 <w	11
	15291	yellow &	11 <t	0.2 <w	0.2 <w	1.4 <t	0.1 <w	0.5 <w	0.3 <t	11	83	0.5 <w	2500	7.8	8.7	39	0.9 <t	3.5	0.5 <w	25
5037456 Diorite St.	15303	Bostonlettuc	450	0.2 <w	0.5 <t	7	1.1	1.4 <t	1.2	59	540	1.4 <t	4400	29	0.4 <t	53	0.6 <t	23	1 <t	50
	15302	Swiss chard	35	0.2 <w	0.2 <w	18	0.7	0.7 <t	0.4 <t	21	190	0.6 <t	2500	21	0.6 <t	21	0.2 <w	13	0.5 <w	96
	15301	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.3 <t	0.5 <w	0.2 <w	2.3 <t	17 <t	0.5 <w	630	4.3	0.2 <w	5.4	0.2 <w	1 <t	0.5 <w	7
5037442 Evans Rd.	15204	carrot	19 <t	0.2 <w	0.2 <w	11	0.1 <w	0.5 <w	0.2 <w	9.7	40	0.5 <w	1300	6.7	0.2 <w	4.6	0.2 <w	7.1	0.5 <w	16
	15205†	lettuce	620	0.2 <w	2	24	2	2.5	2.3	130	770	7.8	5500	65	1.4	86	5.1	42	1.3 <t	100
	15203	tomato	5 <w	0.2 <w	0.2 <w	0.7 <t	0.2 <t	0.8 <t	0.2 <w	3.9	40	0.5 <w	730	4.5	0.5 <t	8.5	0.3 <t	0.7 <t	0.5 <w	8
5037450 Oliver Cres	15259	carrot	11 <t	0.2 <w	0.3 <t	5	0.1 <w	0.5 <w	0.2 <w	6.9	25	0.5 <w	290	110	0.2 <w	5.3	0.2 <w	1.8 <t	0.5 <w	2
	15257	cucumber	9 <t	0.2 <w	0.6 <t	10	0.2 <t	0.5 <w	0.2 <w	4.6	26	0.5 <w	1000	33	0.2 <w	2.1 <t	0.2 <w	3.4	0.5 <w	9
	15258	green beans	10 <t	0.2 <w	0.2 <w	6.4	0.1 <w	0.5 <w	0.2 <w	6.3	73	0.5 <w	310	120	0.2 <w	5.3	0.2 <w	2.7	0.5 <w	4
	15260	potato	26	0.2 <w	0.2 <w	10	0.1 <w	0.5 <w	0.2 <w	7.2	38	0.5 <w	340	110	0.2 <w	6.9	0.2 <w	1.8 <t	0.5 <w	3
	15261	zucchini	27	0.2 <w	0.2 <w	11	0.1 <w	0.5 <w	0.2 <w	7	40	0.5 <w	430	120	0.2 <w	7.7	0.2 <w	1.1 <t	0.5 <w	5
Community of Falconbridge																				
5037535 Hardy St.	15687	tomatoes	8	0.2 <w	0.2 <w	1.1 <t	0.2 <t	0.5 <w	1.1	6.6	36	1.8	1400	8.9	0.6 <t	27	0.2 <w	1.7	0.5 <w	20
5037515 Hardy St.	15567	zucchini	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	2.2	9.9	35	0.5 <w	3200	8.1	1.1	51	0.2 <w	2.6	0.5 <w	33
5037521 Lakeshore Rd.	15611	cucumber	21 <t	0.2 <w	0.7 <t	5	0.1 <w	0.5 <w	1.7	7.3	61	0.5 <w	3600	24	0.7 <t	42	0.2 <w	11	0.5 <w	39
	15612	potato	18 <t	0.2 <w	0.2 <w	0.7 <t	0.2 <t	0.5 <w	0.5 <t	7.9	100	1.4 <t	1000	6.5	0.4 <t	9.1	0.2 <w	0.7 <t	0.5 <w	17
	15610	tomato	5 <w	0.2 <w	0.2 <w	0.9 <t	0.2 <t	0.5 <w	0.4 <t	5.7	180	0.5 <w	1200	11	0.4 <t	20	0.2 <w	1.4 <t	0.5 <w	22
	15609	zucchini	9 <t	0.2 <w	0.2 <w	1.5 <t	0.1 <w	0.5 <w	0.9 <t	13	68	0.5 <w	3100	18	0.7 <t	41	0.2 <w	3.9	0.5 <w	50

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037568 Lindsley St.	15690	tomatoes	7	0.2 <w	0.2 <w	0.9 <t	0.5	0.5 <w	0.4 <w	13	57	0.5 <w	3200	21	0.7 <t	17	0.2 <w	2.3	0.5 <w	31
5037518 Morlock St.	15579*	beets	82	0.3 <t	1.9	24	0.5	0.8 <t	1.8	25	180	130	2700	23	0.2 <w	46	0.2 <w	13	0.5 <w	92
	15580*	carrot	59	0.2 <w	1.1	5.7	0.2 <t	0.5 <w	1.1	11	100	5.8	1200	9.7	0.3 <t	26	0.2 <w	7.1	0.5 <w	46
	15578	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	1.5	5.7	44	1 <t	2200	11	0.7 <t	47	0.2 <w	1 <t	0.5 <w	19
5037512 Parkinson St.	15552	cucumber	8 <t	0.2 <w	0.5 <t	5.9	0.2 <t	0.5 <w	2	6.9	43	0.5 <w	4500	18	0.5 <t	34	0.2 <w	16	0.5 <w	56
	15551	tomato	5 <w	0.2 <w	0.2 <w	2.3 <t	0.3 <t	0.5 <w	0.6 <t	6.4	120	0.5 <w	1100	9.8	0.4 <t	17	0.2 <w	2.3 <t	0.5 <w	15
Community of Gatchell																				
5037432 Clemow Ave.	15150	green beans	6 <t	0.2 <w	0.2 <w	4.3 <t	0.1 <w	0.5 <w	0.2 <w	13	83	0.5 <w	3100	15	3	15	0.2 <w	8.6	0.5 <w	46
	15151†	Italian lettuce	220	0.2 <w	1.3	14	0.5	1.2 <t	0.8 <t	57	370	2.1 <t	3500	32	2.9	27	1.6	36	0.5 <w	27
	15152	Swiss chard	240	0.2 <w	0.3 <t	37	0.1 <w	1.1 <t	0.3 <t	22	300	0.5 <w	6200	14	0.3 <t	9.2	0.4 <t	17	0.6 <t	25
	15153	tomato	6 <t	0.2 <w	0.2 <w	1 <t	0.1 <w	0.8 <t	0.2 <w	4.9	27	0.5 <w	730	5	0.4 <t	2.4 <t	0.2 <w	2 <t	0.5 <w	8
5037470 Gutcher St.	15374	beets	100	0.2 <w	0.2 <w	4.8 <t	0.4 <t	0.5 <w	0.2 <w	17	150	1.4 <t	2100	14	0.2 <w	9.6	0.3 <t	11	0.5 <w	50
	15376	cucumbers	10 <t	0.2 <w	0.7 <t	3.4 <t	0.1 <w	0.5 <w	0.2 <w	11	71	0.5 <w	3400	11	1.9	16	0.3 <t	13	0.5 <w	45
	15375	green beans	6 <t	0.2 <w	0.2 <w	3.8 <t	0.1 <w	0.5 <w	0.3 <t	8.3	74	0.5 <w	2600	17	2.1	22	0.3 <t	12	0.5 <w	40
	15378†	Italian lettuce	1300	0.2 <w	2.3	31	1	4.7	2.2	64	1800	11	3700	91	1.2	41	0.7 <t	43	3.3	78
	15380	parsley	570	0.2 <w	1.5	22	0.2 <t	2 <t	0.8 <t	36	730	4.9	3300	47	1.9	25	0.4 <t	26	1.4 <t	46
	15377	Swiss chard	100	0.2 <w	0.3 <t	30	0.3 <t	0.7 <t	0.4 <t	14	140	1.7 <t	5100	12	0.3 <t	9.1	0.4 <t	24	0.5 <w	49
	15379	tomato	5 <w	0.2 <w	0.2 <w	1 <t	0.2 <t	1.2 <t	0.2 <w	4.5	54	0.5 <w	770	4.7	0.3 <t	3.7	0.4 <t	2.1 <t	0.5 <w	12

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037435 Tuddenham St.	15162	basil	150	0.2 <w	1.3	12	0.2 <t	0.8 <t	0.4 <t	26	240	2.7	5900	42	0.2 <w	13	0.8 <t	49	0.5 <w	39
	15164	carrot	74	0.2 <w	0.2 <w	3 <t	0.1 <w	0.5 <w	0.2 <w	7.2	120	0.5 <w	1500	6.3	0.2 <w	4.5	0.2 <w	6	0.5 <w	18
	15159	cucumber	5 <w	0.2 <w	0.3 <t	3 <t	0.1 <w	0.5 <w	0.2 <w	9.6	57	0.5 <w	3600	8.9	2.1	9.5	0.2 <w	9	0.5 <w	39
	15158	green beans	5 <w	0.2 <w	0.2 <w	2.5 <t	0.1 <w	0.5 <w	0.3 <t	9.9	71	0.5 <w	3200	15	3.5	19	0.2 <w	8.2	0.5 <w	41
	15161†	Italian lettuce	380	0.2 <w	1	10	0.6	1.6 <t	0.8 <t	42	600	3.4	2400	26	0.9 <t	24	1	21	1.1 <t	28
	15160†	parsley	810	0.2 <w	0.8 <t	12	0.2 <t	3.2	0.9 <t	25	1100	4.6	3900	31	0.7 <t	23	0.4 <t	15	2.3 <t	59
	15165	potato	19 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	6	53	0.5 <w	1100	4.1	0.5 <t	2.3 <t	0.2 <w	0.5 <	0.5 <w	13
	15156	Swiss chard	63	0.2 <w	0.2 <w	16	0.4 <t	0.6 <t	0.2 <w	25	140	0.5 <w	8400	16	0.8 <t	16	0.6 <t	12	0.5 <w	55
	15157	tomato	5 <w	0.2 <w	0.2 <w	0.6 <t	0.1 <w	1.1 <t	0.2 <w	4.8	63	0.5 <w	1100	8.8	0.2 <w	2.9	0.2 <w	1.4 <t	0.5 <w	13
	15163	white onion	5 <w	0.2 <w	0.2 <w	1.4 <t	0.1 <w	0.5 <w	0.2 <w	2.6	24 <t	0.5 <w	900	5	0.2 <w	4.3	0.2 <w	4.4	0.5 <w	14
Community of Lively																				
5037465 John St.	15355*	beets	150	0.2 <w	0.2 <w	25	0.1 <w	0.8 <t	0.3 <t	11	210	61	2600	19	0.2 <w	4.6	0.2 <w	31	0.5 <w	30
	15357*	carrot	64	0.3 <t	0.2 <w	15	0.2 <t	0.5 <w	0.2 <w	19	92	42	990	6.6	0.2 <w	54	0.2 <w	22	0.5 <w	11
	15353*	cucumber	11 <t	0.2 <w	0.4 <t	5	0.1 <w	1.1 <t	0.4 <t	98	68	21	4000	15	1.5	190	0.2 <w	44	0.5 <w	49
	15354†	lettuce	320	0.2 <w	0.3 <t	13	0.3 <t	1.5 <t	0.2 <w	26	500	2.4 <t	3100	23	0.7 <t	7.3	0.2 <w	67	0.9 <t	41
	15356†*	tomato	5 <w	0.2 <w	0.2 <w	1.3 <t	0.2 <t	0.6 <t	0.2 <w	27	40	48	1600	14	0.2 <w	64	0.2 <w	6.7	0.5 <w	24
5037467 Selma St.	15370	tomato	5 <w	0.2 <w	0.2 <w	1.4 <t	0.1 <w	0.5 <w	0.2 <w	3.6	23 <t	0.5 <w	990	5.2	0.2 <w	4.5	0.2 <w	2.3 <t	0.5 <w	10
5037461 Suzanne St.	15337	beets	65	0.2 <w	0.2 <w	50	0.2 <t	0.5 <w	0.2 <w	13	110	0.7 <t	2700	13	0.2 <w	3.1	0.2 <w	10	0.5 <w	39
	15338*	carrot	57	0.2 <w	0.2 <w	15	0.1 <w	0.5 <w	0.3 <t	9.7	91	40	1800	5.8	0.2 <w	9.6	0.2 <w	9.8	0.5 <w	23
	15339	lettuce	2000	0.2 <w	1.1	30	1.6	4.9	1.9	35	2800	22	6600	110	0.4 <t	26	0.3 <t	46	4.6	110

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037462 Suzanne St.	15349	beets	48	0.2 <w	0.2 <w	26	0.2 <t	0.5 <w	0.2 <w	13	84	1.4 <t	3200	12	0.2 <w	2.6	0.2 <w	10	0.5 <w	37
5037462 Suzanne St.	15342	cucumber	19 <t	0.2 <w	0.2 <w	8.8	0.1 <w	0.8 <t	0.2 <w	16	92	0.5 <w	5000	10	4.2	4.6	0.2 <w	15	0.5 <w	59
5037462 Suzanne St.	15344	green beans	17 <t	0.2 <w	0.2 <w	5.9	0.1 <w	0.5 <w	0.2 <w	9.1	85	0.5 <w	3000	11	5.7	5.3	0.2 <w	11	0.5 <w	35
5037462 Suzanne St.	15343†	lettuce	890	0.2 <w	0.4 <t	12	0.3 <t	2.4 <t	0.8 <t	26	1200	2.3 <t	4200	47	0.9 <t	7.6	0.2 <w	20	2.4 <t	33
5037462 Suzanne St.	15350	potato*	23 <t	0.2 <w	0.2 <w	2.1 <t	0.1 <w	0.5 <w	0.2 <w	8.1	56	67	1500	7.8	0.5 <t	2.1 <t	0.2 <w	2 <t	0.5 <w	29
5037462 Suzanne St.	15348	Swiss chard	270	0.2 <w	0.2 <w	40	1.1	1.1 <t	0.3 <t	20	360	1.4 <t	13000	41	2.7	5.7	0.2 <w	24	0.6 <t	110
5037462 Suzanne St.	15347	squash	10 <t	0.2 <w	0.2 <w	2.7 <t	0.1 <w	0.5 <w	0.3 <t	9.8	52	1.7 <t	2700	14	1.5	6.3	0.2 <w	5	0.5 <w	32
5037462 Suzanne St.	15346	tomato*	5 <w	0.3 <t	0.2 <w	2.5 <t	0.2 <t	0.5 <w	0.2 <w	21	80	260	2000	12	0.4 <t	19	0.2 <w	3.7	0.5 <w	27
5037462 Suzanne St.	15345	yellow beans	19 <t	0.2 <w	0.2 <w	4.8 <t	0.1 <w	0.5 <w	0.2 <w	11	89	0.5 <w	3100	14	4.5	4.5	0.2 <w	8.6	0.5 <w	37

<w - no measurable amount. <t - trace amount. All results are in μg/g dry wt. All beryllium (Be) results were less than 0.2 μg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Coniston																						
5037484 1st Ave. (garden)	0-15 cm	15452	7400	< 0.8	< 5	33	< 0.5	< 0.8	2700	20	6	19	8900	4	1900	84	< 1.5	39	< 1	25	20	30
		15453	7400	< 0.8	< 5	33	< 0.5	< 0.8	2600	20	6	19	9000	4	1900	90	< 1.5	39	< 1	25	21	31
5037481 3rd Ave. (garden)	0-15 cm	15444	12000	< 0.8	< 5	76	< 0.5	< 0.8	6500	31	8	55	15000	13	3700	260	< 1.5	**84**	< 1	32	27	40
		15445	12000	< 0.8	< 5	82	< 0.5	< 0.8	7200	33	9	60	15000	13	3900	270	< 1.5	**87**	< 1	34	29	42
5037478 4th Ave. (garden)	0-15 cm	15426	8300	< 0.8	< 5	74	< 0.5	< 0.8	12000	28	6	58	12000	40	3800	300	< 1.5	**65**	< 1	49	26	83
		15427	7600	< 0.8	12	67	< 0.5	< 0.8	11000	23	6	60	12000	35	4300	280	< 1.5	**64**	< 1	39	22	74
5037501 Allan St. (garden)	0-15 cm	15625	8700	< 0.8	13	110	< 0.5	0.8	8900	32	19	**300**	16000	**170**	3100	250	< 1.5	**460**	< 1	42	27	**210**
		15626	8400	< 0.8	13	93	< 0.5	< 0.8	8200	30	19	**310**	15000	**140**	3000	240	< 1.5	**450**	< 1	40	27	**190**
5037503 Allan St. (garden)	0-15 cm	15643	11000	< 0.8	7	60	< 0.5	< 0.8	14000	27	12	**150**	15000	32	4100	240	< 1.5	**210**	< 1	47	29	110
		15644	13000	< 0.8	< 5	80	< 0.5	< 0.8	14000	32	11	**130**	17000	27	4700	270	< 1.5	**160**	< 1	52	34	92
5037506 Caruso St. (garden)	0-15 cm	15654	13000	< 0.8	7	97	< 0.5	< 0.8	21000	39	11	**150**	18000	19	6600	300	< 1.5	**170**	< 1	49	33	98
		15655	14000	< 0.8	6	110	< 0.5	< 0.8	24000	40	11	**160**	18000	20	6600	320	< 1.5	**170**	< 1	53	35	99
5037509 Caruso St. (garden)	0-15 cm	15669	13000	< 0.8	6	71	< 0.5	< 0.8	6600	34	8	73	14000	11	3300	200	< 1.5	**97**	< 1	43	31	31
		15670	13000	< 0.8	6	73	< 0.5	< 0.8	7300	32	8	75	14000	11	3400	210	< 1.5	**95**	< 1	45	32	34
5037473 East St. (garden)	0-15 cm	15396	9600	< 0.8	**18**	70	< 0.5	< 0.8	8900	26	**24**	**400**	17000	61	3200	280	< 1.5	**540**	**2**	43	26	120
		15397	9700	< 0.8	17	72	< 0.5	< 0.8	9000	26	**24**	**380**	18000	48	3100	290	< 1.5	**570**	**2**	43	26	120
5037475 East St. (garden)	0-15 cm	15414	11000	< 0.8	5	56	< 0.5	< 0.8	8700	33	8	67	17000	19	4000	260	< 1.5	**88**	< 1	42	34	64
		15415	10000	< 0.8	< 5	53	< 0.5	< 0.8	7700	32	8	66	15000	17	3900	250	< 1.5	**84**	< 1	37	31	54
5037487 Edward St. (garden)	0-15 cm	15469	11000	< 0.8	19	59	< 0.5	< 0.8	7800	29	15	**270**	16000	47	2800	190	< 1.5	**290**	< 1	39	30	65
		15470	11000	< 0.8	12	52	< 0.5	< 0.8	8800	29	9	**130**	14000	22	2700	190	< 1.5	**150**	< 1	40	33	47

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037495 Walter Cres (garden)	0-15 cm	15518	10000	< 0.8	9	56	< 0.5	< 0.8	6400	32	9	**100**	20000	13	2900	220	< 1.5	**130**	< 1	39	38	51
		15519	11000	< 0.8	12	57	< 0.5	< 0.8	6000	34	9	**110**	18000	14	2900	230	< 1.5	**150**	< 1	38	38	54
5037498 Walter Cres. (garden)	0-15 cm	15535	13000	< 0.8	< 5	81	< 0.5	< 0.8	8900	37	7	74	17000	22	4300	300	< 1.5	**87**	< 1	51	34	64
		15536	13000	< 0.8	< 5	79	< 0.5	< 0.8	8700	36	7	66	17000	27	4200	280	< 1.5	**83**	< 1	52	34	61
5037490 Walter St. (garden)	0-15 cm	15489	7000	< 0.8	7	120	< 0.5	< 0.8	16000	25	16	**240**	13000	37	3700	250	< 1.5	**350**	< 1	44	21	**180**
		15490	5500	< 0.8	7	110	< 0.5	< 0.8	15000	21	16	**250**	12000	35	3300	240	< 1.5	**350**	< 1	35	18	**170**
5037492 Walter St. (garden)	0-15 cm	15507	9600	< 0.8	< 5	55	< 0.5	< 0.8	11000	29	7	54	14000	12	3900	250	< 1.5	**61**	< 1	39	30	57
		15508	11000	< 0.8	< 5	56	< 0.5	< 0.8	13000	29	7	53	15000	12	3900	260	< 1.5	**60**	< 1	45	31	45
5037644 William Ave. (garden)	0-5 cm	15692	13000	< 0.8	10	99	< 0.5	< 0.8	12000	38	14	**250**	16000	35	4000	270	< 1.5	**340**	< 1	54	33	84
Community of Copper Cliff																						
5037452 Cliff St. (garden)	0-15 cm	15276	12000	0.8	**24**	79	< 0.5	< 0.8	17000	35	**22**	**470**	21000	36	6500	230	1.7	**450**	**12**	43	31	82
		15277	13000	0.8	**23**	84	< 0.5	< 0.8	15000	36	21	**460**	21000	41	5900	230	< 1.5	**430**	**11**	45	33	80
5037445 Cobalt St. (garden)	0-15 cm	15223	12000	0.9	17	70	< 0.5	0.8	7400	30	13	**420**	19000	69	3700	210	< 1.5	**330**	**2**	43	28	84
		15224	11000	< 0.8	16	68	< 0.5	< 0.8	7600	32	15	**470**	17000	77	3900	210	< 1.5	**370**	**2**	43	28	110
5037438 Collins St. (garden)	0-15 cm	15189	11000	**1.4**	**32**	**330**	< 0.5	**1.9**	38000	34	21	**720**	17000	**640**	7100	780	< 1.5	**650**	**2**	160	23	**380**
		15190	10000	**1.5**	**31**	**270**	< 0.5	**1.8**	34000	30	**22**	**660**	17000	**530**	7100	670	< 1.5	**640**	1	130	22	**330**
5037439 Collins St. (garden)	0-15 cm	15184	11000	1	**38**	100	< 0.5	0.9	19000	30	20	**580**	17000	**160**	6100	270	< 1.5	**570**	**2**	53	26	140
		15185	10000	1	**36**	92	< 0.5	0.9	18000	26	21	**520**	17000	**160**	6000	240	< 1.5	**590**	1	48	24	130
5037459 Craig St. (garden)	0-15 cm	15320	13000	< 0.8	11	100	< 0.5	**1.1**	14000	41	21	**730**	19000	78	6000	330	< 1.5	**730**	**3**	50	33	130
		15321	13000	< 0.8	12	110	< 0.5	**1.1**	14000	43	**23**	**820**	20000	71	5600	330	< 1.5	**800**	**3**	52	35	130

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037448 Creighton Rd. (garden)	0-15 cm	15243	7700	< 0.8	7	61	< 0.5	0.9	9700	20	11	**230**	8700	19	3100	120	< 1.5	**270**	1	35	16	44
		15244	7900	< 0.8	6	65	< 0.5	1	11000	19	11	**260**	8600	19	3000	120	< 1.5	**290**	**2**	39	16	40
5037454 Diorite St. (garden)	0-15 cm	15299	9700	< 0.8	7	40	< 0.5	< 0.8	6800	28	8	**280**	13000	19	3500	170	< 1.5	**200**	**2**	37	29	42
		15300	9200	< 0.8	7	38	< 0.5	< 0.8	6800	27	9	**280**	12000	20	3600	160	< 1.5	**220**	**2**	38	28	41
5037456 Diorite St. (garden)	0-15 cm	15304	11000	< 0.8	9	70	< 0.5	< 0.8	8400	33	18	**740**	16000	51	3800	220	< 1.5	**490**	**4**	35	29	90
		15305	12000	**1.3**	< 5	77	< 0.5	< 0.8	8600	35	21	**680**	17000	53	3800	230	< 1.5	**560**	**4**	42	31	84
5037442 Evans Rd. (garden)	0-15 cm	15206	12000	< 0.8	9	44	< 0.5	< 0.8	6300	27	7	**140**	13000	16	2400	180	< 1.5	**130**	< 1	44	27	33
		15207	11000	< 0.8	9	43	< 0.5	< 0.8	6700	27	7	**150**	13000	16	2400	180	< 1.5	**130**	< 1	44	27	32
5037450 Oliver Cres. (garden)	0-15 cm	15262	11000	0.8	**21**	82	< 0.5	< 0.8	5400	34	15	**340**	18000	**130**	3300	230	< 1.5	**310**	**3**	42	32	89
		15263	11000	< 0.8	**19**	70	< 0.5	< 0.8	5000	31	14	**280**	17000	100	3100	210	< 1.5	**280**	**2**	39	31	78
Community of Falconbridge																						
5037515 HARDY ST. (garden)	0-15 cm	15566	9600	< 0.8	**120**	65	< 0.5	**1.9**	21000	38	**54**	**1100**	26000	120	4800	180	2.3	**1100**	**3**	45	31	150
5037535 Hardy St. (garden)	0-15 cm	15688	9600	**1.2**	**400**	88	< 0.5	**2.8**	12000	**77**	**73**	**1700**	37000	**240**	3500	210	2.5	**1400**	**7**	34	35	140
5037521 Lakeshore Rd. (garden)	0-15 cm	15607	7300	< 0.8	**25**	47	< 0.5	< 0.8	4700	28	16	**230**	14000	22	2400	200	< 1.5	**260**	< 1	28	27	40
		15608	8000	< 0.8	16	48	< 0.5	< 0.8	5600	26	14	**150**	13000	18	2300	180	< 1.5	**210**	< 1	30	24	42
5037568 Lindsley St. (garden)	0-15 cm	15689	7900	0.8	**26**	38	< 0.5	< 0.8	4500	23	**22**	**360**	13000	34	2100	160	< 1.5	**360**	< 1	26	25	45
5037518 Morlock St. (garden)	0-15 cm	15576	11000	< 0.8	**110**	61	< 0.5	**1.7**	7700	49	**44**	**690**	19000	96	2400	140	< 1.5	**960**	**2**	38	27	83
		15577	8800	< 0.8	**86**	52	< 0.5	**1.5**	7900	42	**38**	**640**	16000	82	2400	130	< 1.5	**820**	**2**	32	23	79
5037512 Parkinson St. (garden)	0-15 cm	15549	7900	< 0.8	6	32	< 0.5	< 0.8	2200	22	8	45	9600	7	1600	100	< 1.5	**60**	< 1	19	22	23
		15550	7300	< 0.8	6	32	< 0.5	< 0.8	2300	21	8	45	8700	7	1600	96	< 1.5	**62**	< 1	18	20	23

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Gatchell																						
5037432 Clemow Ave. (garden)	0-15 cm	15154	8100	< 0.8	< 5	70	< 0.5	< 0.8	5800	28	9	**140**	14000	23	3700	300	< 1.5	**120**	1	31	25	75
		15155	8200	< 0.8	5	68	< 0.5	< 0.8	5100	28	8	**130**	14000	21	3600	280	< 1.5	**120**	< 1	29	25	65
5037470 Gutcher St. (garden)	0-15 cm	15381	10000	1	11	130	< 0.5	< 0.8	13000	28	12	**250**	16000	86	4400	420	< 1.5	**260**	< 1	52	28	**170**
		15382	10000	1	12	120	< 0.5	< 0.8	12000	28	12	**260**	16000	88	4300	400	< 1.5	**270**	< 1	52	28	180
5037435 Tuddenham St. (garden)	0-15 cm	15166	9900	< 0.8	6	85	< 0.5	< 0.8	6900	35	11	**210**	16000	**130**	4100	260	< 1.5	**190**	1	32	28	87
		15167	7200	< 0.8	6	54	< 0.5	< 0.8	3500	56	15	**440**	14000	51	2700	170	< 1.5	**300**	1	22	25	58
Community of Lively																						
5037465 John St. (garden)	0-15 cm	15358	11000	< 0.8	< 5	94	< 0.5	< 0.8	12000	28	8	**79**	17000	55	5500	320	< 1.5	**80**	< 1	65	33	93
		15359	13000	**1.1**	< 5	110	< 0.5	< 0.8	15000	29	8	**92**	20000	80	6700	340	< 1.5	**91**	< 1	72	35	110
5037467 Selma St.	0-15 cm	15372	21000	< 0.8	7	120	< 0.5	< 0.8	9200	49	8	**110**	22000	28	5600	310	< 1.5	**130**	< 1	48	41	100
5037461 Suzanne St. (garden)	0-15 cm	15340	14000	< 0.8	8	76	< 0.5	< 0.8	9900	32	10	**120**	22000	110	6600	270	< 1.5	**130**	< 1	28	36	110
		15341	18000	< 0.8	9	89	< 0.5	< 0.8	12000	37	11	**110**	25000	93	7000	350	< 1.5	**150**	< 1	49	46	96
5037462 Suzanne St. (garden)	0-15 cm	15351	13000	< 0.8	< 5	60	< 0.5	< 0.8	7700	29	8	61	19000	35	4200	280	< 1.5	**74**	< 1	40	37	76
		15352	15000	< 0.8	< 5	76	< 0.5	< 0.8	8500	33	8	60	20000	34	4400	310	< 1.5	**73**	< 1	45	42	97

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

4. SAMPLING STATION COORDINATES AND MAPS

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5028001	Charlotte St.	Sudbury (Core)	back yard	17	499100	5146900	46.4759	-81.0120
5028002	Granite St.	Sudbury (Core)	back yard	17	499100	5149700	46.5006	-81.0114
5028003	Mckim St.	Sudbury (Core)	back yard	17	499000	5149600	46.5002	-81.0131
5028004	Mckim St.	Sudbury (Core)	back yard	17	499100	5149600	46.5003	-81.0114
5028005	Mckim St.	Sudbury (Core)	back yard	17	499300	5149600	46.4998	-81.0087
5028006	Moland St.	Sudbury (Core)	back yard	17	498400	5148400	46.4895	-81.0202
5028007	Kennedy St.	Sudbury (New)	front yard	17	504500	5152300	46.5240	-80.9415
5028008	Lamothe St.	Sudbury (New)	front yard	17	504900	5152500	46.5258	-80.9355
5028009	Madison Ave.	Sudbury (New)	front yard	17	505200	5152800	46.5288	-80.9317
5028010	Haven Brook Dr.	Sudbury (New)	front yard	17	505100	5153400	46.5341	-80.9330
5028011	Madison Ave.	Sudbury (New)	front yard	17	505700	5153000	46.5304	-80.9251
5028012	Colonial Cres.	Sudbury (New)	back yard	17	505600	5152500	46.5258	-80.9266
5028013	San Fransciso St.	Sudbury (New)	front yard	17	506600	5152200	46.5238	-80.9138
5028014	Josephine St.	Sudbury (New)	back yard	17	506200	5152600	46.5269	-80.9190
5028015	Robin St.	Sudbury (New)	back yard	17	506100	5153300	46.5333	-80.9199
5028016	Eastern Ave.	Sudbury (New)	back yard	17	506600	5153100	46.5315	-80.9143
5028017	Lasalle Blvd	Sudbury (New)	front yard	17	506900	5152100	46.5220	-80.9100
5028018	Meadowside Ave.	Sudbury (New)	front yard	17	506100	5151600	46.5182	-80.9209
5028019	Auger Ave.	Sudbury (New)	back yard	17	505200	5151000	46.5127	-80.9327
5028020	Claudia C0urt	Sudbury (New)	front yard	17	505300	5151700	46.5189	-80.9304
5028021	Danforth Ave.	Sudbury (New)	back yard	17	504900	5151400	46.5159	-80.9359
5028022	Kipling Crt.	Sudbury (New)	front yard	17	504800	5151000	46.5121	-80.9378
5028023	Canterbury St.	Sudbury (New)	front yard	17	504700	5151100	46.5138	-80.9383
5028024	Elmhurst Crt.	Sudbury (New)	front yard	17	504600	5150500	46.5079	-80.9404
5028025	Fairburn St.	Sudbury (New)	front yard	17	504400	5151500	46.5172	-80.9427
5028026	Ferndale Ave.	Sudbury (East)	front yard	17	502800	5149500	46.4988	-80.9639
5028027	Dundas St.	Sudbury (East)	back yard	17	503100	5149300	46.4973	-80.9602
5028028	Clearview Ave.	Sudbury (East)	back yard	17	502800	5149200	46.4965	-80.9633
5028029	Bancroft Dr.	Sudbury (East)	front yard	17	503300	5149100	46.4954	-80.9567
5028030	Mooney St	Sudbury (East)	front yard	17	503800	5148600	46.4906	-80.9506
5028031	Dale St.	Sudbury (East)	back yard	17	503400	5148300	46.4879	-80.9556
5028032	Howey Dr.	Sudbury (East)	back yard	17	503000	5148500	46.4901	-80.9604
5028033	North Shore Dr.	Sudbury (East)	front yard	17	503200	5148200	46.4877	-80.9583
5028034	Harrison Dr.	Sudbury (South)	front yard	17	499400	5143000	46.4405	-81.0072
5028035	Ester St.	Sudbury (South)	front yard	17	499000	5143400	46.4440	-81.0126
5028036	St. Charles Lake Rd.	Sudbury (South)	back yard	17	499500	5143700	46.4472	-81.0071
5028037	Moonrock Ave.	Sudbury (South)	back yard	17	498900	5144300	46.4525	-81.0143
5028038	Jupiter Cres.	Sudbury (South)	back yard	17	499000	5144600	46.4549	-81.0126
5028039	Maki Ave.	Sudbury (South)	front yard	17	500300	5144800	46.4566	-80.9959
5028040	Nepahwin Ave.	Sudbury (South)	front yard	17	500700	5145500	46.4627	-80.9910
5028041	10th Ave.	Lively	back yard	17	488800	5143100	46.4411	-81.1457
5028042	8th Ave.	Lively	front yard	17	489200	5143100	46.4416	-81.1412
5028043	Birch St.	Lively	back yard	17	489500	5143100	46.4417	-81.1364
5028044	6th Ave.	Lively	back yard	17	489100	5142800	46.4383	-81.1417
5028045	9th Ave.	Lively	back yard	17	488800	5142800	46.4390	-81.1455
5028046	Margaret Ave.	Lively	front yard	17	488600	5142600	46.4371	-81.1485
5028047	Third Ave.	Lively	front yard	17	488600	5142300	46.4343	-81.1481
5028048	Woodland Ave.	Lively	front yard	17	488400	5142200	46.4332	-81.1514
5028049	Irene Cres.	Lively	back yard	17	488400	5141700	46.4290	-81.1510
5028050	Second Ave.	Lively	front yard	17	488900	5142200	46.4337	-81.1443
5028051	Ronald Cres.	Lively	front yard	17	489000	5139700	46.4111	-81.1426

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5028052	Jacobson Dr.	Lively	back yard	17	489300	5141100	46.4230	-81.1395
5028053	Agnes St.	Lively	front yard	17	488500	5140000	46.4134	-81.1498
5028054	Westview Cres.	Lively	front yard	17	489900	5140900	46.4219	-81.1318
5028055	Patricia St.	Lively	front yard	17	490400	5140900	46.4216	-81.1255
5028056	Field St.	Lively	front yard	17	490200	5140600	46.4185	-81.1271
5028057	Lvi Ave.	Lively	back yard	17	490600	5141100	46.4231	-81.1229
5028058	Laura Ave.	Lively	back yard	17	490900	5141000	46.4228	-81.1182
5028059	Birch St.	Azilda	front yard	17	492600	5154700	46.5461	-81.0969
5028060	Oak St.	Azilda	back yard	17	492500	5154400	46.5435	-81.0977
5028061	Laurin St.	Azilda	front yard	17	492200	5154900	46.5477	-81.1020
5028062	Albert St.	Azilda	back yard	17	491800	5154400	46.5429	-81.1074
5028063	Alphonse St.	Azilda	front yard	17	491600	5154900	46.5475	-81.1100
5028064	Ulin St.	Azilda	front yard	17	491500	5155200	46.5506	-81.1103
5028065	Brunet St.	Azilda	back yard	17	491100	5155200	46.5499	-81.1160
5028066	Ellen St.	Azilda	front yard	17	490700	5155200	46.5502	-81.1209
5028067	Paul St.	Azilda	front yard	17	490400	5155300	46.5508	-81.1253
5028068	Wahamaa St.	Azilda	front yard	17	489900	5154400	46.5428	-81.1314
5028069	Rayside Ave.	Azilda	back yard	17	490400	5155500	46.5526	-81.1257
5028070	Notre Dame St.	Azilda	front yard	17	490400	5155900	46.5570	-81.1255
5028071	Paquette St.	Azilda	back yard	17	491000	5155700	46.5552	-81.1174
5028072	Denis Crt.	Azilda	back yard	17	491100	5156400	46.5609	-81.1161
5028073	Belanger St.	Azilda	back yard	17	489400	5156600	46.5633	-81.1390
5028074	Gennings St.	Sudbury (South)	back yard	17	503300	5147200	46.4786	-80.9567
5028075	Kirkwood Dr.	Sudbury (South)	back yard	17	503100	5147400	46.4806	-80.9597
5028076	Lakewood Dr.	Sudbury (South)	front yard	17	503200	5146200	46.4693	-80.9587
5028077	Ramsey Lake Rd.	Sudbury (South)	front yard	17	501200	5146100	46.4687	-80.9845
5028078	Woodlawn Rd.	Sudbury (South)	front yard	17	502700	5147200	46.4788	-80.9655
5028079	Gary Ave.	Sudbury (New)	front yard	17	505900	5152200	46.5233	-80.9236
5028080	Turner Ave.	Sudbury (New)	back yard	17	501300	5152500	46.5257	-80.9835
5028081	Gordon Ave.	Sudbury (New)	back yard	17	501200	5152000	46.5220	-80.9848
5028082	Mclean St.	Sudbury (New)	back yard	17	501700	5152000	46.5214	-80.9779
5028083	Alexander St.	Sudbury (New)	back yard	17	502000	5151600	46.5183	-80.9738
5028084	Madeleine Ave.	Sudbury (New)	back yard	17	502300	5152000	46.5219	-80.9698
5028085	Lavoie St.	Sudbury (New)	back yard	17	502700	5152200	46.5235	-80.9643
5028086	Grandview Blvd.	Sudbury (New)	back yard	17	502300	5152500	46.5261	-80.9700
5028087	Inglewood Crt	Sudbury (New)	back yard	17	502600	5152600	46.5265	-80.9657
5028088	Montrose Ave.	Sudbury (New)	back yard	17	502800	5152000	46.5219	-80.9629
5028089	Wedgewood Dr.	Sudbury (New)	back yard	17	503200	5152600	46.5266	-80.9580
5028090	Craig St.	Copper Cliff	front yard	17	495200	5147400	46.4804	-81.0626
5028091	Craig St.	Copper Cliff	back yard	17	495100	5147500	46.4814	-81.0633
5028092	Diorite	Copper Cliff	front yard	17	495000	5147300	46.4791	-81.0645
5028093	Bradley	Copper Cliff	back yard	17	495100	5147000	46.4761	-81.0644
5028102	Orell St.	Garson	front yard	17	510300	5155800	46.5553	-80.8659
5028103	Orell St.	Garson	back yard	17	510200	5156100	46.5586	-80.8667
5028104	Desjardins St.	Garson	back yard	17	510200	5156300	46.5606	-80.8663
5028105	Cedar St.	Garson	front yard	17	510300	5156700	46.5640	-80.8656
5028106	Yonge St.	Garson	front yard	17	510700	5156500	46.5620	-80.8598
5028107	Mcdougall St.	Garson	front yard	17	510800	5156700	46.5636	-80.8592
5028108	Penman Ave.	Garson	back yard	17	509800	5154600	46.5448	-80.8722
5028109	Sandra St.	Garson	front yard	17	509900	5155100	46.5495	-80.8713
5028110	Catherine Dr.	Garson	back yard	17	510600	5155400	46.5517	-80.8621
5028111	Maureen St.	Garson	back yard	17	511000	5154700	46.5454	-80.8569
5028112	Donnelly Dr.	Garson	front yard	17	507500	5154400	46.5432	-80.9022

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5028113	Cedargreen Dr.	Garson	front yard	17	507900	5154800	46.5467	-80.8966
5028114	Metcalfe Ave.	Garson	front yard	17	508500	5154800	46.5464	-80.8888
5028115	Metcalfe Ave.	Garson	front yard	17	508500	5155000	46.5486	-80.8890
5028116	Pilotte Rd.	Garson	front yard	17	508700	5154800	46.5470	-80.8862
5028117	Eva St.	Garson	front yard	17	509300	5155100	46.5498	-80.8793
5028118	Bowlands Bay Rd.	Skead	front yard	17	517900	5166600	46.6526	-80.7658
5028119	Maclennan Dr.	Skead	front yard	17	519200	5168900	46.6729	-80.7489
5028120	Canton Rd.	Skead	front yard	17	519300	5168900	46.6736	-80.7477
5028121	Kevin Dr.	Skead	back yard	17	519400	5169100	46.6756	-80.7464
5028122	Landing Rd.	Skead	front yard	17	519300	5170000	46.6831	-80.7477
5028123	Cottage Lane	Skead	front yard	17	519700	5169900	46.6827	-80.7419
5037432	Clemow Ave.	Gatchell	garden	17	498100	5147100	46.4777	-81.0245
5037433	Tuddenham St.	Gatchell	front yard	17	498000	5149600	46.5002	-81.0267
5037434	Tuddenham St.	Gatchell	back yard	17	498000	5146900	46.4760	-81.0264
5037435	Tuddenham St.	Gatchell	garden	17	498000	5147000	46.4761	-81.0262
5037436	Collins St.	Copper Cliff	front yard	17	494700	5146500	46.4720	-81.0692
5037437	Collins St.	Copper Cliff	back yard	17	494700	5146500	46.4721	-81.0695
5037438	Collins St.	Copper Cliff	garden	17	494700	5146500	46.4720	-81.0693
5037439	Collins St.	Copper Cliff	garden	17	494700	5146500	46.4721	-81.0695
5037440	Evans Rd.	Copper Cliff	front yard	17	494800	5146200	46.4689	-81.0683
5037441	Evans Rd.	Copper Cliff	back yard	17	494800	5146200	46.4691	-81.0681
5037442	Evans Rd.	Copper Cliff	garden	17	494800	5146200	46.4691	-81.0681
5037443	Cobalt St.	Copper Cliff	front yard	17	494400	5146700	46.4735	-81.0729
5037444	Cobalt St.	Copper Cliff	back yard	17	494400	5146700	46.4735	-81.0730
5037445	Cobalt St.	Copper Cliff	garden	17	494400	5146700	46.4735	-81.0731
5037446	Creighton Rd.	Copper Cliff	front yard	17	494300	5146800	46.4752	-81.0747
5037447	Creighton Rd.	Copper Cliff	back yard	17	494300	5146900	46.4752	-81.0748
5037448	Creighton Rd.	Copper Cliff	garden	17	494300	5146900	46.4752	-81.0747
5037449	Oliver Cres.	Copper Cliff	back yard	17	494600	5147300	46.4796	-81.0702
5037450	Oliver Cres.	Copper Cliff	garden	17	494600	5147300	46.4796	-81.0703
5037451	Cliff St.	Copper Cliff	back yard	17	494800	5147500	46.4813	-81.0676
5037452	Cliff St.	Copper Cliff	garden	17	494800	5147500	46.4813	-81.0676
5037453	Diorite St.	Copper Cliff	back yard	17	495000	5147300	46.4790	-81.0652
5037454	Diorite St.	Copper Cliff	garden	17	495000	5147300	46.4791	-81.0653
5037455	Diorite St.	Copper Cliff	back yard	17	495300	5147400	46.4802	-81.0611
5037456	Diorite St.	Copper Cliff	garden	17	495300	5147400	46.4802	-81.0612
5037457	Craig St.	Copper Cliff	front yard	17	495200	5147600	46.4816	-81.0630
5037458	Craig St.	Copper Cliff	back yard	17	495200	5147600	46.4817	-81.0628
5037459	Craig St.	Copper Cliff	garden	17	495200	5147600	46.4817	-81.0627
5037460	Suzanne St.	Lively	front yard	17	487800	5144200	46.4515	-81.1587
5037461	Suzanne St.	Lively	garden	17	487800	5144200	46.4515	-81.1584
5037462	Suzanne St.	Lively	garden	17	487800	5144200	46.4515	-81.1584
5037463	John St.	Lively	front yard	17	487900	5144300	46.4518	-81.1573
5037464	John St.	Lively	back yard	17	487900	5144300	46.4517	-81.1574
5037465	John St.	Lively	garden	17	487900	5144200	46.4517	-81.1575
5037466	Selma St.	Lively	front yard	17	488000	5144200	46.4510	-81.1558
5037467	Selma St.	Lively	garden	17	488000	5144200	46.4510	-81.1559
5037468	Gutcher St.	Gatchell	front yard	17	498300	5147000	46.4763	-81.0221
5037469	Gutcher St.	Gatchell	back yard	17	498300	5147000	46.4765	-81.0219
5037470	Gutcher St.	Gatchell	garden	17	498300	5147000	46.4765	-81.0219
5037471	East St.	Coniston	front yard	17	512700	5148400	46.4893	-80.8349
5037472	East St.	Coniston	back yard	17	512700	5148400	46.4895	-80.8346
5037473	East St.	Coniston	garden	17	512700	5148400	46.4891	-80.8346

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037474	East St.	Coniston	back yard	17	512500	5148600	46.4912	-80.8376
5037475	East St.	Coniston	garden	17	512500	5148700	46.4913	-80.8374
5037476	4th Ave.	Coniston	front yard	17	511900	5148700	46.4920	-80.8444
5037477	4th Ave.	Coniston	back yard	17	512000	5148700	46.4920	-80.8441
5037478	4th Ave.	Coniston	garden	17	512000	5148700	46.4920	-80.8440
5037479	3rd Ave.	Coniston	front yard	17	511800	5148500	46.4899	-80.8459
5037480	3rd Ave.	Coniston	back yard	17	511800	5148500	46.4899	-80.8462
5037481	3rd Ave.	Coniston	garden	17	511800	5148500	46.4899	-80.8462
5037482	First Ave.	Coniston	front yard	17	511600	5148300	46.4885	-80.8486
5037483	First Ave.	Coniston	back yard	17	511600	5148300	46.4885	-80.8483
5037484	First Ave.	Coniston	garden	17	511600	5148300	46.4885	-80.8482
5037485	Edward St.	Coniston	front yard	17	511500	5148700	46.4915	-80.8499
5037486	Edward St.	Coniston	back yard	17	511500	5148700	46.4915	-80.8501
5037487	Edward St.	Coniston	garden	17	511500	5148700	46.4915	-80.8502
5037488	Walter St.	Coniston	front yard	17	511400	5148000	46.4853	-80.8518
5037489	Walter St.	Coniston	back yard	17	511400	5148000	46.4851	-80.8518
5037490	Walter St.	Coniston	garden	17	511400	5148000	46.4851	-80.8519
5037491	Walter St.	Coniston	front yard	17	511200	5148000	46.4852	-80.8547
5037492	Walter St.	Coniston	garden	17	511100	5148000	46.4852	-80.8549
5037493	Walter Cres.	Coniston	front yard	17	511200	5147800	46.4836	-80.8540
5037494	Walter Cres.	Coniston	back yard	17	511200	5147800	46.4835	-80.8542
5037495	Walter Cres.	Coniston	garden	17	511200	5147800	46.4835	-80.8544
5037496	Walter Cres.	Coniston	front yard	17	511300	5147800	46.4833	-80.8528
5037497	Walter Cres.	Coniston	back yard	17	511300	5147800	46.4835	-80.8528
5037498	Walter Cres.	Coniston	garden	17	511300	5147800	46.4835	-80.8528
5037499	Allan St.	Coniston	front yard	17	511400	5148100	46.4864	-80.8511
5037500	Allan St.	Coniston	back yard	17	511400	5148100	46.4866	-80.8511
5037501	Allan St.	Coniston	garden	17	511400	5148100	46.4866	-80.8510
5037502	Allan St.	Coniston	back yard	17	511000	5148100	46.4864	-80.8567
5037503	Allan St.	Coniston	garden	17	511000	5148100	46.4864	-80.8567
5037504	Caruso St.	Coniston	front yard	17	510900	5148200	46.4869	-80.8580
5037505	Caruso St.	Coniston	back yard	17	510900	5148100	46.4867	-80.8580
5037506	Caruso St.	Coniston	garden	17	510900	5148100	46.4866	-80.8580
5037507	Caruso St.	Coniston	front yard	17	511000	5148200	46.4870	-80.8566
5037508	Caruso St.	Coniston	back yard	17	511000	5148200	46.4871	-80.8566
5037509	Caruso St.	Coniston	garden	17	511000	5148200	46.4872	-80.8566
5037510	Parkinson St.	Falconbridge	front yard	17	514500	5158000	46.5753	-80.8109
5037511	Parkinson St.	Falconbridge	back yard	17	514500	5158000	46.5754	-80.8108
5037512	Parkinson St.	Falconbridge	garden	17	514500	5158000	46.5754	-80.8108
5037513	Hardy St.	Falconbridge	front yard	17	514600	5158100	46.5762	-80.8094
5037514	Hardy St.	Falconbridge	back yard	17	514600	5158100	46.5761	-80.8097
5037515	Hardy St.	Falconbridge	garden	17	514600	5158100	46.5761	-80.8096
5037516	Morlock St.	Falconbridge	front yard	17	514600	5158000	46.5756	-80.8097
5037517	Morlock St.	Falconbridge	back yard	17	514600	5158000	46.5756	-80.8095
5037518	Morlock St.	Falconbridge	garden	17	514600	5158000	46.5756	-80.8094
5037519	Lakeshore Rd.	Falconbridge	front yard	17	514700	5158000	46.5750	-80.8084
5037520	Lakeshore Rd.	Falconbridge	back yard	17	514700	5157900	46.5748	-80.8081
5037521	Lakeshore Rd.	Falconbridge	garden	17	514700	5157900	46.5748	-80.8080
5037522	Macdonnell	Falconbridge	front yard	17	514300	5157900	46.5746	-80.8128
5037523	Macdonnell	Falconbridge	back yard	17	514400	5157900	46.5747	-80.8126
5037524	Bennett	Falconbridge	front yard	17	514300	5157800	46.5738	-80.8132
5037525	Bennett	Falconbridge	back yard	17	514300	5157800	46.5739	-80.8131
5037526	Hodge St.	Falconbridge	front yard	17	514300	5157700	46.5726	-80.8128

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037527	Hodge St.	Falconbridge	back yard	17	514300	5157700	46.5727	-80.8127
5037528	Lakeshore	Falconbridge	front yard	17	514400	5157700	46.5725	-80.8126
5037529	Lakeshore	Falconbridge	back yard	17	514400	5157700	46.5725	-80.8125
5037530	Lakeshore	Falconbridge	front yard	17	514400	5157700	46.5730	-80.8116
5037531	Lakeshore	Falconbridge	back yard	17	514400	5157700	46.5730	-80.8117
5037532	Lakeshore	Falconbridge	front yard	17	514700	5158000	46.5754	-80.8082
5037533	Hardy	Falconbridge	front yard	17	514600	5158100	46.5762	-80.8090
5037534	Hardy	Falconbridge	front yard	17	514600	5158100	46.5760	-80.8089
5037535	Hardy	Falconbridge	garden	17	514600	5158100	46.5763	-80.8089
5037536	Rix St.	Falconbridge	front yard	17	514400	5158000	46.5753	-80.8119
5037537	Rix St.	Falconbridge	back yard	17	514400	5158000	46.5752	-80.8120
5037538	Edison Rd.	Falconbridge	front yard	17	514000	5158200	46.5776	-80.8167
5037539	Edison Rd.	Falconbridge	back yard	17	514000	5158300	46.5777	-80.8169
5037540	Edison	Falconbridge	front yard	17	514000	5158200	46.5773	-80.8170
5037541	Edison	Falconbridge	back yard	17	514000	5158200	46.5774	-80.8173
5037542	Chesser	Falconbridge	front yard	17	514200	5158100	46.5763	-80.8150
5037543	Chesser	Falconbridge	back yard	17	514200	5158100	46.5763	-80.8148
5037544	Cobalt St.	Falconbridge	front yard	17	514100	5158000	46.5757	-80.8155
5037545	Cobalt St.	Falconbridge	back yard	17	514100	5158000	46.5756	-80.8155
5037546	Cobalt St.	Falconbridge	front yard	17	514200	5158100	46.5759	-80.8146
5037547	Cobalt St.	Falconbridge	back yard	17	514200	5158100	46.5761	-80.8146
5037548	Franklin St.	Falconbridge	front yard	17	514300	5158000	46.5754	-80.8140
5037549	Franklin St.	Falconbridge	back yard	17	514200	5158000	46.5754	-80.8143
5037550	Franklin St.	Falconbridge	front yard	17	514300	5158100	46.5763	-80.8139
5037551	Franklin St.	Falconbridge	back yard	17	514300	5158100	46.5763	-80.8136
5037552	Rix St.	Falconbridge	front yard	17	514400	5158000	46.5757	-80.8127
5037553	Rix St.	Falconbridge	back yard	17	514400	5158000	46.5758	-80.8125
5037554	Rix St.	Falconbridge	front yard	17	514300	5158200	46.5773	-80.8129
5037555	Rix St.	Falconbridge	back yard	17	514400	5158200	46.5773	-80.8126
5037556	Copper St.	Falconbridge	front yard	17	514200	5158000	46.5751	-80.8148
5037557	Copper St.	Falconbridge	back yard	17	514200	5158000	46.5752	-80.8148
5037558	Parkinson St.	Falconbridge	front yard	17	514400	5158100	46.5763	-80.8117
5037559	Parkinson St.	Falconbridge	back yard	17	514400	5158100	46.5763	-80.8115
5037560	Parkinson	Falconbridge	front yard	17	514400	5158100	46.5767	-80.8119
5037561	Parkinson	Falconbridge	back yard	17	514400	5158100	46.5767	-80.8121
5037562	Lindsley	Falconbridge	front yard	17	514400	5158200	46.5774	-80.8121
5037563	Lindsley	Falconbridge	back yard	17	514400	5158200	46.5773	-80.8121
5037564	Lindsley St.	Falconbridge	front yard	17	514300	5158300	46.5779	-80.8135
5037565	Lindsley St.	Falconbridge	back yard	17	514300	5158300	46.5781	-80.8135
5037566	Lindsley St.	Falconbridge	front yard	17	514200	5158300	46.5777	-80.8146
5037567	Lindsley St.	Falconbridge	back yard	17	514200	5158200	46.5775	-80.8146
5037568	Lindsley St	Falconbridge	garden	17	514200	5158200	46.5775	-80.8146
5037569	Lindsley St. E	Falconbridge	front yard	17	514100	5158300	46.5781	-80.8154
5037570	Macdonnell	Falconbridge	front yard	17	514400	5157900	46.5742	-80.8124
5037571	Macdonnell	Falconbridge	back yard	17	514400	5157900	46.5742	-80.8125
5037572	Lakeshore	Falconbridge	front yard	17	514400	5157700	46.5726	-80.8118
5037573	Lakeshore	Falconbridge	back yard	17	514400	5157700	46.5724	-80.8117
5037574	Hodge St.	Falconbridge	front yard	17	514300	5157700	46.5723	-80.8128
5037575	Hodge St.	Falconbridge	back yard	17	514300	5157600	46.5722	-80.8130
5037576	Bennett St.	Falconbridge	front yard	17	514400	5157700	46.5731	-80.8123
5037577	Bennett St.	Falconbridge	back yard	17	514400	5157700	46.5730	-80.8125
5037578	Lakeshore	Falconbridge	front yard	17	514500	5157800	46.5732	-80.8112
5037579	Lakeshore	Falconbridge	back yard	17	514500	5157800	46.5733	-80.8114

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037580	Parkinson St.	Falconbridge	front yard	17	514600	5157900	46.5744	-80.8097
5037581	Parkinson St.	Falconbridge	back yard	17	514600	5157900	46.5743	-80.8099
5037582	Morlock St.	Falconbridge	front yard	17	514600	5158000	46.5754	-80.8096
5037583	Morlock St.	Falconbridge	back yard	17	514600	5158000	46.5754	-80.8097
5037584	Parkinson St.	Falconbridge	front yard	17	514500	5158000	46.5753	-80.8109
5037585	Parkinson St.	Falconbridge	back yard	17	514500	5158000	46.5753	-80.8108
5037586	Edison	Falconbridge	front yard	17	514300	5158500	46.5798	-80.8128
5037587	Edison	Falconbridge	back yard	17	514300	5158500	46.5800	-80.8130
5037588	Lindsley	Falconbridge	front yard	17	514000	5158300	46.5785	-80.8177
5037589	Lindsley	Falconbridge	back yard	17	514000	5158400	46.5787	-80.8176
5037590	Lindsley	Falconbridge	front yard	17	513900	5158500	46.5798	-80.8180
5037591	Lindsley	Falconbridge	back yard	17	513900	5158500	46.5798	-80.8183
5037592	Lindsley	Falconbridge	front yard	17	514000	5158600	46.5808	-80.8171
5037593	Lindsley	Falconbridge	back yard	17	514000	5158600	46.5809	-80.8173
5037594	Hillcres.t	Falconbridge	front yard	17	514100	5158500	46.5797	-80.8159
5037595	Hillcres.t	Falconbridge	back yard	17	514100	5158500	46.5799	-80.8159
5037596	Lindsley	Falconbridge	front yard	17	513900	5158400	46.5793	-80.8183
5037597	Lindsley	Falconbridge	back yard	17	513900	5158400	46.5792	-80.8181
5037598	Copper St.	Falconbridge	front yard	17	514100	5157900	46.5749	-80.8155
5037599	Copper St.	Falconbridge	back yard	17	514100	5158000	46.5750	-80.8155
5037600	Macmillian	Falconbridge	front yard	17	514100	5158100	46.5761	-80.8159
5037601	Macmillian	Falconbridge	back yard	17	514100	5158100	46.5761	-80.8156
5037602	Morlock	Falconbridge	front yard	17	514600	5158000	46.5753	-80.8095
5037603	Morlock	Falconbridge	back yard	17	514600	5158000	46.5752	-80.8096
5037604	Morlock St.	Falconbridge	front yard	17	514600	5158000	46.5752	-80.8093
5037605	Morlock St.	Falconbridge	back yard	17	514600	5158000	46.5751	-80.8094
5037606	Hardy	Falconbridge	front yard	17	514700	5158000	46.5757	-80.8087
5037607	Hardy	Falconbridge	back yard	17	514600	5158000	46.5755	-80.8089
5037608	Lakeshore	Falconbridge	front yard	17	514500	5157800	46.5735	-80.8106
5037609	Lakeshore	Falconbridge	back yard	17	514500	5157800	46.5733	-80.8104
5037610	Lakeshore	Falconbridge	front yard	17	514600	5157900	46.5746	-80.8093
5037611	Lakeshore	Falconbridge	back yard	17	514600	5157900	46.5747	-80.8094
5037612	Rix	Falconbridge	front yard	17	514500	5157900	46.5743	-80.8110
5037613	Rix	Falconbridge	back yard	17	514500	5157900	46.5742	-80.8112
5037614	Macdonnell	Falconbridge	front yard	17	514400	5157800	46.5737	-80.8118
5037615	Macdonnell	Falconbridge	back yard	17	514400	5157800	46.5736	-80.8120
5037630	Oak St.	Coniston	front yard	17	511400	5147000	46.4764	-80.8521
5037631	Oak St.	Coniston	back yard	17	511400	5147000	46.4764	-80.8519
5037632	Oak St.	Coniston	back yard	17	511400	5147200	46.4781	-80.8511
5037633	Oak St.	Coniston	back yard	17	511400	5147200	46.4782	-80.8511
5037634	Oak St.	Coniston	front yard	17	511400	5147300	46.4789	-80.8512
5037635	Oak St.	Coniston	back yard	17	511400	5147300	46.4789	-80.8514
5037636	Edward St.	Coniston	front yard	17	511500	5147300	46.4788	-80.8500
5037637	Edward St.	Coniston	back yard	17	511500	5147300	46.4788	-80.8502
5037638	William Ave.	Coniston	front yard	17	511400	5147600	46.4819	-80.8510
5037639	William St.	Coniston	back yard	17	511500	5147600	46.4819	-80.8507
5037640	William	Coniston	front yard	17	511400	5147600	46.4817	-80.8511
5037641	William	Coniston	back yard	17	511400	5147600	46.4817	-80.8513
5037642	William	Coniston	front yard	17	511400	5147600	46.4823	-80.8511
5037643	William	Coniston	back yard	17	511400	5147600	46.4823	-80.8514
5037644	William	Coniston	garden	17	511400	5147700	46.4824	-80.8514
5037645	William	Coniston	front yard	17	511400	5147800	46.4838	-80.8511
5037646	William	Coniston	back yard	17	511400	5147800	46.4838	-80.8514

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037647	Nickel	Coniston	front yard	17	511400	5147900	46.4845	-80.8521
5037648	Nickel	Coniston	back yard	17	511400	5147900	46.4847	-80.8521
5037649	5th Ave.	Coniston	front yard	17	512000	5148600	46.4912	-80.8430
5037650	5th Ave.	Coniston	back yard	17	512000	5148600	46.4912	-80.8430
5037651	4th Ave.	Coniston	front yard	17	511900	5148500	46.4897	-80.8445
5037652	4th Ave.	Coniston	back yard	17	511900	5148500	46.4897	-80.8447
5037653	4th Ave.	Coniston	front yard	17	511900	5148600	46.4907	-80.8445
5037654	4th Ave.	Coniston	back yard	17	511900	5148600	46.4907	-80.8447
5037655	4th Ave.	Coniston	front yard	17	512000	5148600	46.4907	-80.8442
5037656	4th Ave.	Coniston	back yard	17	512000	5148600	46.4907	-80.8439
5037657	3rd Ave.	Coniston	front yard	17	511800	5148700	46.4913	-80.8460
5037658	3rd Ave.	Coniston	back yard	17	511800	5148700	46.4913	-80.8462
5037659	3rd Ave.	Coniston	front yard	17	511800	5148700	46.4915	-80.8462
5037660	3rd Ave.	Coniston	back yard	17	511800	5148700	46.4915	-80.8464
5037661	3rd Ave.	Coniston	front yard	17	511800	5148500	46.4903	-80.8460
5037662	3rd Ave.	Coniston	back yard	17	511800	5148500	46.4903	-80.8463
5037663	3rd Ave.	Coniston	front yard	17	511800	5148500	46.4902	-80.8457
5037664	3rd Ave.	Coniston	back yard	17	511900	5148500	46.4902	-80.8454
5037665	3rd Ave.	Coniston	front yard	17	511800	5148400	46.4894	-80.8456
5037666	3rd Ave.	Coniston	back yard	17	511900	5148400	46.4894	-80.8454
5037667	2nd Ave.	Coniston	front yard	17	511700	5148500	46.4903	-80.8474
5037668	2nd Ave.	Coniston	back yard	17	511700	5148500	46.4903	-80.8476
5037669	2nd Ave.	Coniston	front yard	17	511700	5148500	46.4903	-80.8472
5037670	2nd Ave.	Coniston	back yard	17	511700	5148500	46.4903	-80.8470
5037671	2nd Ave.	Coniston	front yard	17	511700	5148600	46.4908	-80.8472
5037672	2nd Ave.	Coniston	back yard	17	511700	5148600	46.4908	-80.8475
5037673	Spruce	Coniston	front yard	17	511700	5148700	46.4914	-80.8476
5037674	Spruce	Coniston	back yard	17	511700	5148700	46.4914	-80.8479
5037675	2nd Ave.	Coniston	front yard	17	511700	5148600	46.4911	-80.8471
5037676	2nd Ave.	Coniston	back yard	17	511800	5148600	46.4912	-80.8466
5037677	1st Ave.	Coniston	front yard	17	511600	5148700	46.4919	-80.8488
5037678	1st Ave.	Coniston	back yard	17	511600	5148700	46.4919	-80.8490
5037679	1st Ave.	Coniston	front yard	17	511600	5148500	46.4902	-80.8485
5037680	1st Ave.	Coniston	back yard	17	511600	5148500	46.4902	-80.8483
5037681	1st Ave.	Coniston	front yard	17	511600	5148500	46.4898	-80.8486
5037682	1st Ave.	Coniston	side yard	17	511600	5148500	46.4898	-80.8483
5037683	1st Ave.	Coniston	front yard	17	511600	5148300	46.4885	-80.8487
5037684	1st Ave.	Coniston	back yard	17	511600	5148300	46.4885	-80.8490
5037685	1st Ave.	Coniston	front yard	17	511600	5148400	46.4894	-80.8488
5037686	1st Ave.	Coniston	back yard	17	511600	5148400	46.4894	-80.8490
5037687	Edward	Coniston	front yard	17	511500	5148500	46.4895	-80.8499
5037688	Edward	Coniston	back yard	17	511500	5148500	46.4895	-80.8501
5037689	Edward	Coniston	front yard	17	511500	5148500	46.4897	-80.8499
5037690	Edward	Coniston	back yard	17	511500	5148500	46.4897	-80.8501
5037691	Edward	Coniston	front yard	17	511500	5148400	46.4888	-80.8500
5037692	Edward	Coniston	back yard	17	511500	5148400	46.4888	-80.8502
5037693	Edward	Coniston	front yard	17	511500	5148400	46.4892	-80.8499
5037694	Edward	Coniston	back yard	17	511500	5148400	46.4892	-80.8501
5037695	Edward	Coniston	front yard	17	511500	5148600	46.4909	-80.8497
5037696	Edward	Coniston	back yard	17	511600	5148600	46.4909	-80.8495
5037697	Edward	Coniston	front yard	17	511500	5148700	46.4919	-80.8497
5037698	Edward	Coniston	back yard	17	511600	5148700	46.4919	-80.8495
5037699	Edward	Coniston	front yard	17	511500	5148700	46.4916	-80.8499

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037700	Edward	Coniston	back yard	17	511500	5148700	46.4916	-80.8501
5037701	Edward	Coniston	front yard	17	511500	5148800	46.4929	-80.8500
5037702	Edward	Coniston	back yard	17	511500	5148800	46.4929	-80.8503
5037703	Edward	Coniston	front yard	17	511500	5148800	46.4928	-80.8499
5037704	Edward	Coniston	back yard	17	511500	5148800	46.4928	-80.8496
5037705	Concession	Coniston	side yard	17	511900	5148800	46.4931	-80.8445
5037706	Concession	Coniston	side yard	17	512000	5148800	46.4931	-80.8442
5037707	Concession	Coniston	front yard	17	511900	5148800	46.4931	-80.8449
5037708	Concession	Coniston	back yard	17	511900	5148900	46.4932	-80.8449
5037709	Concession	Coniston	front yard	17	511700	5148800	46.4930	-80.8474
5037710	Concession	Coniston	back yard	17	511700	5148900	46.4932	-80.8474
5037711	Concession	Coniston	front yard	17	511600	5148800	46.4929	-80.8488
5037712	Concession	Coniston	back yard	17	511600	5148800	46.4928	-80.8488
5037713	Amanda	Coniston	front yard	17	511800	5148900	46.4936	-80.8466
5037714	Amanda	Coniston	back yard	17	511800	5148900	46.4935	-80.8466
5037715	Balsam	Coniston	front yard	17	511800	5148800	46.4925	-80.8461
5037716	Balsam	Coniston	back yard	17	511800	5148800	46.4926	-80.8461
5037717	Balsam	Coniston	front yard	17	511700	5148800	46.4925	-80.8476
5037718	Balsam	Coniston	back yard	17	511700	5148800	46.4927	-80.8476
5037719	Aubrey	Coniston	front yard	17	511400	5148500	46.4903	-80.8516
5037720	Aubrey	Coniston	back yard	17	511400	5148500	46.4903	-80.8520
5037721	Caruso	Coniston	back yard	17	511500	5148200	46.4869	-80.8503
5037722	Caruso	Coniston	front yard	17	511400	5148200	46.4871	-80.8515
5037723	Caruso	Coniston	back yard	17	511400	5148200	46.4874	-80.8515
5037724	Caruso	Coniston	front yard	17	511300	5148200	46.4870	-80.8532
5037725	Caruso	Coniston	back yard	17	511300	5148200	46.4869	-80.8532
5037726	Caruso	Coniston	front yard	17	511200	5148200	46.4871	-80.8535
5037727	Caruso	Coniston	back yard	17	511200	5148200	46.4871	-80.8535
5037728	Caruso	Coniston	front yard	17	511200	5148200	46.4870	-80.8538
5037729	Caruso	Coniston	back yard	17	511200	5148200	46.4871	-80.8538
5037730	Caruso	Coniston	front yard	17	511200	5148200	46.4870	-80.8538
5037731	Caruso	Coniston	back yard	17	511200	5148200	46.4869	-80.8538
5037732	Caruso	Coniston	front yard	17	511200	5148200	46.4871	-80.8544
5037733	Caruso	Coniston	back yard	17	511200	5148200	46.4871	-80.8544
5037734	East	Coniston	front yard	17	512500	5148600	46.4912	-80.8377
5037735	East	Coniston	back yard	17	512400	5148600	46.4910	-80.8379
5037736	East	Coniston	front yard	17	512500	5148500	46.4901	-80.8369
5037737	East	Coniston	back yard	17	512500	5148500	46.4900	-80.8372
5037738	East	Coniston	front yard	17	512600	5148500	46.4899	-80.8359
5037739	East	Coniston	back yard	17	512600	5148500	46.4900	-80.8356
5037740	Albert	Coniston	front yard	17	512600	5148600	46.4910	-80.8359
5037741	Albert	Coniston	back yard	17	512600	5148600	46.4909	-80.8361
5037742	Bryce	Coniston	front yard	17	512100	5148300	46.4885	-80.8419
5037743	Bryce	Coniston	back yard	17	512100	5148300	46.4884	-80.8417
5037744	William	Coniston	front yard	17	511400	5147900	46.4849	-80.8510
5037745	William	Coniston	back yard	17	511500	5147900	46.4849	-80.8507
5037746	William	Coniston	front yard	17	511400	5148000	46.4856	-80.8510
5037747	William	Coniston	back yard	17	511500	5148000	46.4856	-80.8507
5037748	Nickel St.	Coniston	front yard	17	511300	5148100	46.4864	-80.8530
5037749	Nickel St.	Coniston	back yard	17	511300	5148100	46.4862	-80.8531
5037750	Rowat St.	Gatchell	front yard	17	498500	5147100	46.4778	-81.0192
5037751	Rowat St.	Gatchell	back yard	17	498500	5147100	46.4778	-81.0192
5037752	Rowat St.	Gatchell	front yard	17	498600	5147200	46.4780	-81.0185

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037753	Rowat St.	Gatchell	back yard	17	498600	5147200	46.4781	-81.0183
5037754	Glover	Gatchell	front yard	17	498500	5147200	46.4787	-81.0200
5037755	Glover	Gatchell	back yard	17	498500	5147200	46.4786	-81.0199
5037756	Demorest St.	Gatchell	front yard	17	498400	5147100	46.4776	-81.0206
5037757	Demorest St.	Gatchell	back yard	17	498400	5147100	46.4775	-81.0208
5037758	Bulmer	Gatchell	front yard	17	498300	5147200	46.4785	-81.0228
5037759	Bulmer	Gatchell	back yard	17	498300	5147200	46.4783	-81.0226
5037760	Gutcher	Gatchell	front yard	17	498200	5147100	46.4773	-81.0233
5037761	Gutcher	Gatchell	back yard	17	498200	5147100	46.4772	-81.0236
5037762	Clemon	Gatchell	front yard	17	498100	5147100	46.4772	-81.0246
5037763	Clemon	Gatchell	back yard	17	498100	5147100	46.4772	-81.0243
5037764	Morrison	Gatchell	front yard	17	498100	5146900	46.4759	-81.0252
5037765	Morrison	Gatchell	back yard	17	498000	5146900	46.4758	-81.0254
5037766	Tuddenham	Gatchell	front yard	17	497900	5147000	46.4762	-81.0270
5037767	Tuddenham	Gatchell	back yard	17	497900	5146900	46.4760	-81.0273
5037768	Logan	Gatchell	front yard	17	497800	5147000	46.4767	-81.0289
5037769	Logan	Gatchell	back yard	17	497800	5147000	46.4767	-81.0291
5037770	Dean	Gatchell	front yard	17	497700	5146800	46.4752	-81.0301
5037771	Dean	Gatchell	back yard	17	497700	5146800	46.4752	-81.0298
5037772	Landsend St.	Gatchell	front yard	17	497700	5147200	46.4784	-81.0295
5037773	Landsend St.	Gatchell	back yard	17	497700	5147200	46.4786	-81.0296
5037774	Walter	Gatchell	front yard	17	497600	5147000	46.4765	-81.0315
5037775	Walter	Gatchell	back yard	17	497600	5147000	46.4765	-81.0317
5037776	Mcnevin	Copper Cliff	front yard	17	495200	5146200	46.4692	-81.0627
5037777	Mcnevin	Copper Cliff	back yard	17	495200	5146200	46.4692	-81.0629
5037778	Mckeen	Copper Cliff	front yard	17	495300	5146200	46.4689	-81.0615
5037779	Mckeen	Copper Cliff	back yard	17	495300	5146200	46.4690	-81.0616
5037780	Peter St.	Copper Cliff	front yard	17	495100	5146100	46.4689	-81.0636
5037781	Peter St.	Copper Cliff	back yard	17	495100	5146100	46.4689	-81.0635
5037782	Peter St.	Copper Cliff	front yard	17	495100	5146100	46.4680	-81.0641
5037783	Peter St.	Copper Cliff	back yard	17	495100	5146100	46.4680	-81.0643
5037784	Church St.	Copper Cliff	front yard	17	495000	5146100	46.4688	-81.0649
5037785	Church St.	Copper Cliff	back yard	17	495000	5146100	46.4687	-81.0646
5037786	Church St.	Copper Cliff	front yard	17	495000	5146100	46.4684	-81.0654
5037787	Church St.	Copper Cliff	back yard	17	495000	5146100	46.4684	-81.0656
5037788	Evans Rd.	Copper Cliff	front yard	17	494900	5146300	46.4701	-81.0667
5037789	Evans Rd.	Copper Cliff	back yard	17	494900	5146300	46.4702	-81.0669
5037790	Evans Rd.	Copper Cliff	front yard	17	494900	5146200	46.4697	-81.0669
5037791	Evans Rd.	Copper Cliff	back yard	17	494900	5146200	46.4695	-81.0667
5037792	Evans Rd.	Copper Cliff	front yard	17	494800	5146100	46.4685	-81.0679
5037793	Evans Rd.	Copper Cliff	back yard	17	494800	5146100	46.4684	-81.0676
5037794	Evans St.	Copper Cliff	front yard	17	494700	5146000	46.4679	-81.0687
5037795	Evans St.	Copper Cliff	back yard	17	494700	5146100	46.4680	-81.0688
5037796	Orford St.	Copper Cliff	front yard	17	494700	5146200	46.4695	-81.0690
5037797	Orford St.	Copper Cliff	back yard	17	494700	5146200	46.4697	-81.0686
5037798	Orford St.	Copper Cliff	front yard	17	494600	5146300	46.4700	-81.0697
5037799	Orford St.	Copper Cliff	back yard	17	494700	5146300	46.4702	-81.0695
5037800	Orford St.	Copper Cliff	front yard	17	494600	5146300	46.4704	-81.0706
5037801	Orford St.	Copper Cliff	back yard	17	494600	5146300	46.4706	-81.0704
5037802	Finland	Copper Cliff	front yard	17	494500	5146200	46.4697	-81.0711
5037803	Finland	Copper Cliff	back yard	17	494500	5146300	46.4699	-81.0712
5037804	Venice St.	Copper Cliff	back yard	17	495500	5147400	46.4803	-81.0589
5037805	Dominico	Copper Cliff	front yard	17	495500	5147600	46.4818	-81.0590

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037806	Dominico	Copper Cliff	back yard	17	495500	5147600	46.4817	-81.0587
5037807	Dominico	Copper Cliff	back yard	17	495400	5147600	46.4823	-81.0593
5037808	Domenico	Copper Cliff	back yard	17	495300	5147400	46.4803	-81.0609
5037809	Craig St.	Copper Cliff	front yard	17	495200	5147400	46.4800	-81.0625
5037810	Craig St.	Copper Cliff	back yard	17	495200	5147400	46.4802	-81.0630
5037811	Craig St.	Copper Cliff	front yard	17	495200	5147500	46.4814	-81.0631
5037812	Diorite St.	Copper Cliff	back yard	17	495400	5147400	46.4801	-81.0601
5037813	Diorite St.	Copper Cliff	front yard	17	495400	5147400	46.4800	-81.0604
5037814	Diorite St.	Copper Cliff	front yard	17	495300	5147400	46.4800	-81.0611
5037815	Diorite St.	Copper Cliff	back yard	17	495300	5147400	46.4801	-81.0611
5037816	Diorite St.	Copper Cliff	back yard	17	495100	5147300	46.4790	-81.0643
5037817	Union	Copper Cliff	front yard	17	495100	5147200	46.4785	-81.0633
5037818	Union	Copper Cliff	back yard	17	495200	5147200	46.4784	-81.0631
5037819	Park St.	Copper Cliff	front yard	17	494800	5147200	46.4787	-81.0683
5037820	Park St.	Copper Cliff	back yard	17	494800	5147300	46.4788	-81.0683
5037821	Jones	Copper Cliff	front yard	17	494900	5147400	46.4797	-81.0665
5037822	Jones	Copper Cliff	back yard	17	494900	5147300	46.4796	-81.0664
5037823	Jones	Copper Cliff	back yard	17	494800	5147400	46.4798	-81.0681
5037824	Market	Copper Cliff	front yard	17	494800	5146900	46.4756	-81.0678
5037825	Market	Copper Cliff	back yard	17	494800	5146900	46.4758	-81.0677
5037826	Market	Copper Cliff	front yard	17	494700	5146900	46.4757	-81.0684
5037827	Serpentine	Copper Cliff	front yard	17	495000	5147000	46.4770	-81.0651
5037828	Serpentine	Copper Cliff	back yard	17	495000	5147000	46.4769	-81.0654
5037829	Bradley St.	Copper Cliff	front yard	17	495000	5147000	46.4764	-81.0647
5037830	Bradley St.	Copper Cliff	front yard	17	495000	5147000	46.4762	-81.0649
5037831	Bradley St.	Copper Cliff	back yard	17	495000	5146900	46.4760	-81.0651
5037832	Wer St.	Copper Cliff	front yard	17	494500	5146400	46.4716	-81.0713
5037833	Wer St.	Copper Cliff	back yard	17	494500	5146500	46.4717	-81.0715
5037834	Wer St.	Copper Cliff	front yard	17	494500	5146300	46.4706	-81.0721
5037835	Wer St.	Copper Cliff	back yard	17	494500	5146300	46.4705	-81.0718
5037836	Wer St.	Copper Cliff	front yard	17	494500	5146400	46.4712	-81.0714
5037837	Wer St.	Copper Cliff	back yard	17	494500	5146400	46.4711	-81.0712
5037838	Orford St.	Copper Cliff	front yard	17	494500	5146400	46.4709	-81.0712
5037839	Orford St.	Copper Cliff	back yard	17	494500	5146400	46.4710	-81.0710
5037840	Wer St.	Copper Cliff	front yard	17	494800	5146700	46.4735	-81.0681
5037841	Wer St.	Copper Cliff	back yard	17	494800	5146700	46.4734	-81.0679
5037842	Diorite St.	Copper Cliff	front yard	17	495000	5147300	46.4789	-81.0651
5037843	Diorite St.	Copper Cliff	back yard	17	495000	5147300	46.4789	-81.0651
5037844	Union	Copper Cliff	front yard	17	495100	5147200	46.4782	-81.0640
5037845	Union	Copper Cliff	back yard	17	495100	5147200	46.4781	-81.0639
5037846	Park St.	Copper Cliff	front yard	17	494700	5147200	46.4786	-81.0685
5037847	Park St.	Copper Cliff	back yard	17	494700	5147200	46.4784	-81.0685
5037848	Park St.	Copper Cliff	front yard	17	494700	5147200	46.4787	-81.0686
5037849	Park St.	Copper Cliff	back yard	17	494700	5147300	46.4789	-81.0686
5037850	Marconi St.	Copper Cliff	front yard	17	495100	5147300	46.4792	-81.0633
5037851	Marconi St.	Copper Cliff	back yard	17	495100	5147300	46.4791	-81.0635
5037852	Park St.	Copper Cliff	front yard	17	494700	5147200	46.4785	-81.0693
5037853	Park St.	Copper Cliff	side yard	17	494700	5147200	46.4785	-81.0691
5037854	Oliver	Copper Cliff	front yard	17	494600	5147300	46.4791	-81.0698
5037855	Oliver	Copper Cliff	back yard	17	494700	5147300	46.4791	-81.0695
5037856	Cobalt	Copper Cliff	front yard	17	494400	5146500	46.4723	-81.0727
5037857	Cobalt	Copper Cliff	back yard	17	494400	5146500	46.4723	-81.0724
5037858	Cobalt	Copper Cliff	front yard	17	494400	5146600	46.4726	-81.0726

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

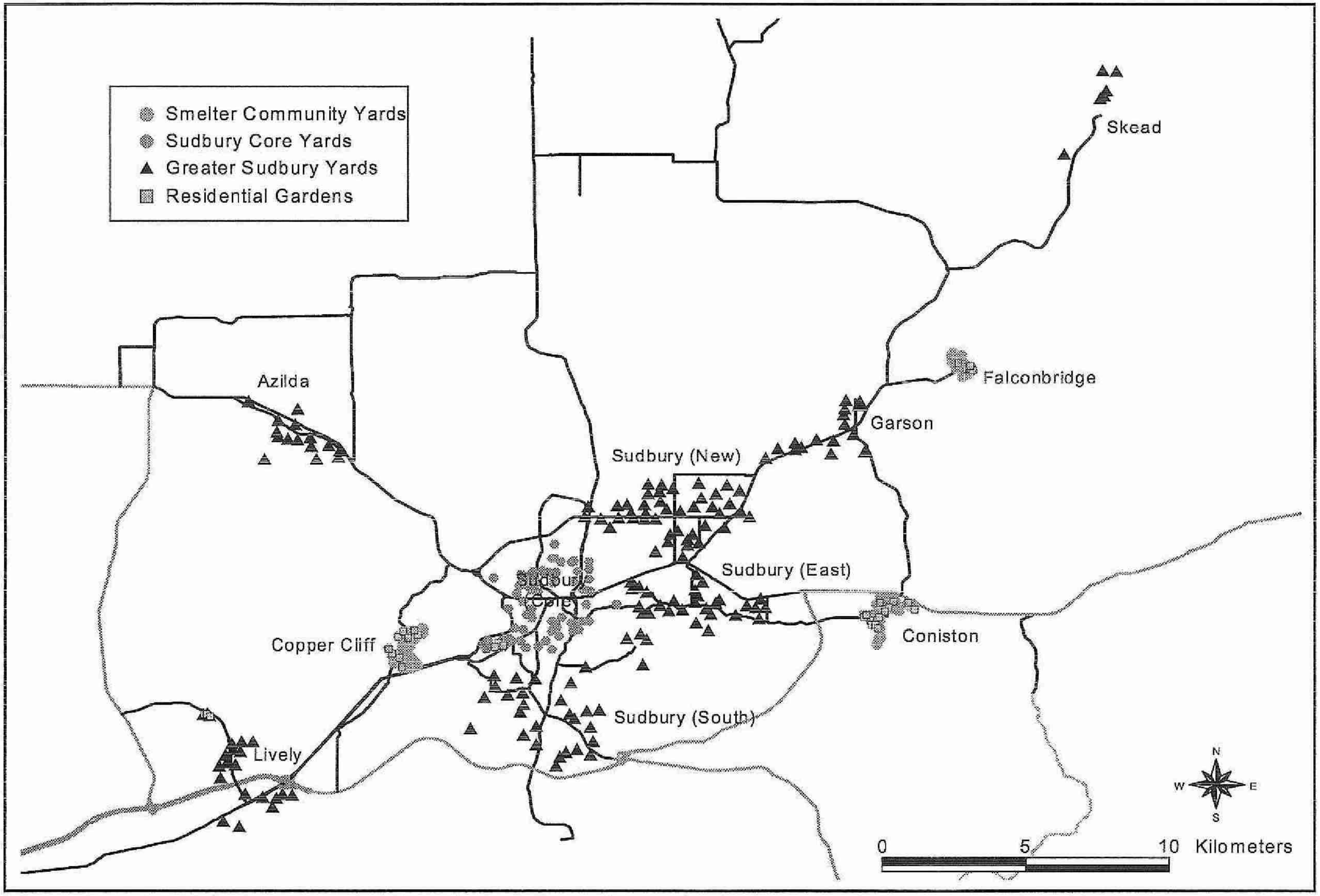
Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037859	Cobalt	Copper Cliff	back yard	17	494500	5146600	46.4725	-81.0723
5037860	Cobalt	Copper Cliff	front yard	17	494400	5146600	46.4726	-81.0727
5037861	Cobalt	Copper Cliff	back yard	17	494400	5146600	46.4726	-81.0729
5037862	Cobalt	Copper Cliff	front yard	17	494400	5146600	46.4730	-81.0727
5037863	Cobalt	Copper Cliff	back yard	17	494400	5146600	46.4730	-81.0730
5037864	Nickel	Copper Cliff	front yard	17	495100	5146500	46.4718	-81.0643
5037865	Nickel	Copper Cliff	back yard	17	495000	5146500	46.4718	-81.0646
5037866	Nickel	Copper Cliff	front yard	17	495100	5146500	46.4717	-81.0640
5037867	Nickel	Copper Cliff	back yard	17	495100	5146500	46.4718	-81.0638
5037868	Nickel	Copper Cliff	front yard	17	495100	5146400	46.4715	-81.0637
5037869	Nickel	Copper Cliff	back yard	17	495100	5146500	46.4716	-81.0636
5037870	Nickel	Copper Cliff	front yard	17	495200	5146400	46.4710	-81.0631
5037871	Nickel	Copper Cliff	back yard	17	495200	5146400	46.4712	-81.0629
5037872	Succo	Copper Cliff	front yard	17	495000	5146400	46.4715	-81.0652
5037873	Succo	Copper Cliff	back yard	17	495000	5146400	46.4715	-81.0649
5037874	Succo	Copper Cliff	back yard	17	495000	5146400	46.4709	-81.0646
5037875	Finland	Copper Cliff	front yard	17	494900	5146500	46.4722	-81.0667
5037876	Finland	Copper Cliff	back yard	17	494900	5146500	46.4720	-81.0666
5037877	Finland	Copper Cliff	front yard	17	494900	5146500	46.4721	-81.0668
5037878	Finland	Copper Cliff	back yard	17	494900	5146500	46.4720	-81.0668
5037879	Finland	Copper Cliff	side yard	17	494900	5146500	46.4722	-81.0670
5037880	Collins	Copper Cliff	front yard	17	494600	5146400	46.4710	-81.0702
5037881	Collins	Copper Cliff	back yard	17	494600	5146400	46.4710	-81.0700
5037882	Collins	Copper Cliff	front yard	17	494500	5146300	46.4700	-81.0721
5037883	Collins	Copper Cliff	back yard	17	494500	5146300	46.4699	-81.0719
5037884	Collins	Copper Cliff	front yard	17	494400	5146300	46.4699	-81.0723
5037885	Collins	Copper Cliff	back yard	17	494500	5146200	46.4697	-81.0722
5037886	Balsam	Copper Cliff	front yard	17	494800	5146800	46.4748	-81.0679
5037887	Balsam	Copper Cliff	back yard	17	494800	5146800	46.4747	-81.0680
5037888	Balsam	Copper Cliff	back yard	17	494900	5146600	46.4732	-81.0663
5037889	Balsam	Copper Cliff	front yard	17	494900	5146500	46.4717	-81.0662
5037890	Balsam	Copper Cliff	back yard	17	494900	5146500	46.4717	-81.0664
5037891	Mcneill Blvd	Sudbury (Core)	back yard	17	499400	5149400	46.4985	-81.0081
5037892	Mcneill Boulevard	Sudbury (Core)	back yard	17	498900	5149500	46.4991	-81.0137
5037893	Ethelbert St.	Sudbury (Core)	back yard	17	498900	5149400	46.4981	-81.0146
5037894	Anderson Ave.	Sudbury (Core)	back yard	17	498900	5149300	46.4974	-81.0147
5037895	White Ave.	Sudbury (Core)	back yard	17	499300	5149400	46.4983	-81.0098
5037896	White Ave.	Sudbury (Core)	back yard	17	499200	5149400	46.4983	-81.0104
5037897	White Ave.	Sudbury (Core)	front yard	17	499100	5149400	46.4981	-81.0123
5037898	Ash St.	Sudbury (Core)	back yard	17	499500	5149100	46.4953	-81.0063
5037899	Victoria St.	Sudbury (Core)	back yard	17	499300	5148400	46.4895	-81.0093
5037900	Whittaker St.	Sudbury (Core)	front yard	17	499200	5148400	46.4895	-81.0098
5037901	Whittaker St.	Sudbury (Core)	front yard	17	499300	5148100	46.4861	-81.0095
5037902	Spruce St.	Sudbury (Core)	back yard	17	499000	5148700	46.4920	-81.0130
5037903	Ash St.	Sudbury (Core)	back yard	17	498800	5149000	46.4947	-81.0159
5037904	Stanley St.	Sudbury (Core)	back yard	17	499200	5149100	46.4959	-81.0100
5037905	Albinson St.	Sudbury (Core)	back yard	17	499100	5148200	46.4874	-81.0115
5037906	Buchanan St.	Sudbury (Core)	front yard	17	499000	5147600	46.4821	-81.0133
5037907	Sandra Blvd	Sudbury (Core)	front yard	17	498700	5147700	46.4827	-81.0174
5037908	Hines St.	Sudbury (East)	front yard	17	507500	5148500	46.4899	-80.9024
5037909	Estelle St.	Sudbury (East)	back yard	17	507300	5148000	46.4858	-80.9054
5037910	Yollie St.	Sudbury (East)	front yard	17	507300	5148800	46.4928	-80.9048
5037911	Eugene St.	Sudbury (East)	back yard	17	506800	5148600	46.4906	-80.9111

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037912	Darby St.	Sudbury (East)	front yard	17	507100	5148500	46.4897	-80.9069
5037913	Dorsett Dr.	Sudbury (East)	front yard	17	506400	5148200	46.4870	-80.9163
5037914	Autumnwood Cres.	Sudbury (East)	front yard	17	505900	5148800	46.4926	-80.9233
5037915	Cherrywood Cres.	Sudbury (East)	front yard	17	505700	5148700	46.4915	-80.9253
5037916	Victor St.	Sudbury (East)	back yard	17	505400	5148400	46.4893	-80.9295
5037917	Roger St.	Sudbury (East)	back yard	17	505600	5148200	46.4874	-80.9273
5037918	Greenwood Dr.	Sudbury (East)	front yard	17	505500	5147500	46.4814	-80.9287
5037919	2nd Ave. S	Sudbury (East)	back yard	17	505100	5147900	46.4844	-80.9340
5037920	Camelot Dr.	Sudbury (East)	back yard	17	505000	5149800	46.5015	-80.9344
5037921	Highgate Rd.	Sudbury (East)	back yard	17	505300	5149500	46.4989	-80.9315
5037922	Kenwood St.	Sudbury (East)	front yard	17	505000	5149100	46.4959	-80.9347
5037923	Hebert St.	Sudbury (East)	front yard	17	505100	5148900	46.4941	-80.9335
5037924	Randolph St.	Sudbury (East)	front yard	17	505000	5148700	46.4916	-80.9346
5037925	Avalon Rd.	Sudbury (East)	back yard	17	504600	5148400	46.4890	-80.9404
5037926	Mckinnon St.	Sudbury (East)	back yard	17	504300	5148700	46.4920	-80.9443
5037927	Shappert Ave.	Sudbury (East)	back yard	17	504100	5148300	46.4886	-80.9464
5037928	Cave.ndish Crt.	Sudbury (South)	back yard	17	500500	5142700	46.4380	-80.9935
5037929	Algonquin Rd.	Sudbury (South)	front yard	17	500300	5142500	46.4364	-80.9962
5037930	Greenvalley Dr.	Sudbury (South)	back yard	17	500100	5142200	46.4332	-80.9981
5037931	Culver Cres.	Sudbury (South)	front yard	17	501400	5142600	46.4370	-80.9823
5037932	Sweetberry Dr.	Sudbury (South)	front yard	17	500900	5142800	46.4390	-80.9881
5037933	Muriel Cres.	Sudbury (South)	front yard	17	501500	5143100	46.4417	-80.9811
5037934	Kaireen St.	Sudbury (South)	front yard	17	501400	5143700	46.4470	-80.9821
5037935	Virginia Dr.	Sudbury (South)	front yard	17	501700	5144400	46.4533	-80.9781
5037936	Loach's Rd.	Sudbury (South)	front yard	17	501200	5144400	46.4529	-80.9838
5037937	Windle Dr.	Sudbury (South)	front yard	17	500800	5144000	46.4499	-80.9897
5037938	Millwood Cres.	Sudbury (South)	front yard	17	500700	5144200	46.4514	-80.9915
5037939	Salo Rd.	Sudbury (South)	front yard	17	497100	5143700	46.4465	-81.0372
5037940	Delwood Crt	Sudbury (South)	front yard	17	497600	5144900	46.4576	-81.0310
5037941	Copper St.	Sudbury (South)	front yard	17	498000	5145800	46.4657	-81.0261
5037942	Robinson Dr.	Sudbury (South)	front yard	17	498000	5145400	46.4618	-81.0257
5037943	Southview Dr.	Sudbury (South)	back yard	17	498800	5145700	46.4648	-81.0158
5037944	Cranbrook Cres.	Sudbury (South)	front yard	17	498500	5145000	46.4587	-81.0200
5037945	Yale St.	Sudbury (South)	front yard	17	499000	5145100	46.4595	-81.0130
5037946	Walford Rd.	Sudbury (South)	back yard	17	499400	5145600	46.4643	-81.0076
5037947	Morris St.	Sudbury (Core)	front yard	17	501100	5148000	46.4853	-80.9861
5037948	Morris St.	Sudbury (Core)	front yard	17	501300	5148000	46.4853	-80.9833
5037949	Lonsdale Ave.	Sudbury (Core)	front yard	17	502200	5148600	46.4910	-80.9707
5037950	St. Raphael St.	Sudbury (Core)	front yard	17	501200	5148600	46.4910	-80.9842
5037951	Brock St.	Sudbury (Core)	front yard	17	501300	5149100	46.4956	-80.9827
5037952	Mountain St.	Sudbury (Core)	front yard	17	501100	5149200	46.4966	-80.9860
5037953	Leslie St.	Sudbury (Core)	front yard	17	501300	5149600	46.4999	-80.9832
5037954	Queen St.	Sudbury (Core)	front yard	17	501300	5150000	46.5035	-80.9832
5037955	Dell St.	Sudbury (Core)	back yard	17	501300	5150300	46.5063	-80.9835
5037956	Dell St.	Sudbury (Core)	back yard	17	500700	5150300	46.5062	-80.9910
5037957	John St.	Sudbury (Core)	back yard	17	500800	5147800	46.4838	-80.9889
5037958	St. Charles St.	Sudbury (Core)	front yard	17	500800	5150300	46.5067	-80.9898
5037959	Bond St.	Sudbury (Core)	front yard	17	500900	5149900	46.5026	-80.9885
5037960	Brebeuf Ave.	Sudbury (Core)	back yard	17	500700	5149500	46.4992	-80.9903
5037961	Patterson St.	Sudbury (Core)	back yard	17	500000	5149400	46.4983	-80.9997
5037962	Bloor St.	Sudbury (Core)	back yard	17	500000	5149600	46.4998	-80.9996
5037963	Melvin Ave.	Sudbury (Core)	front yard	17	500100	5149900	46.5022	-80.9983
5037964	Antwerp Ave.	Sudbury (Core)	back yard	17	499900	5149900	46.5023	-81.0019

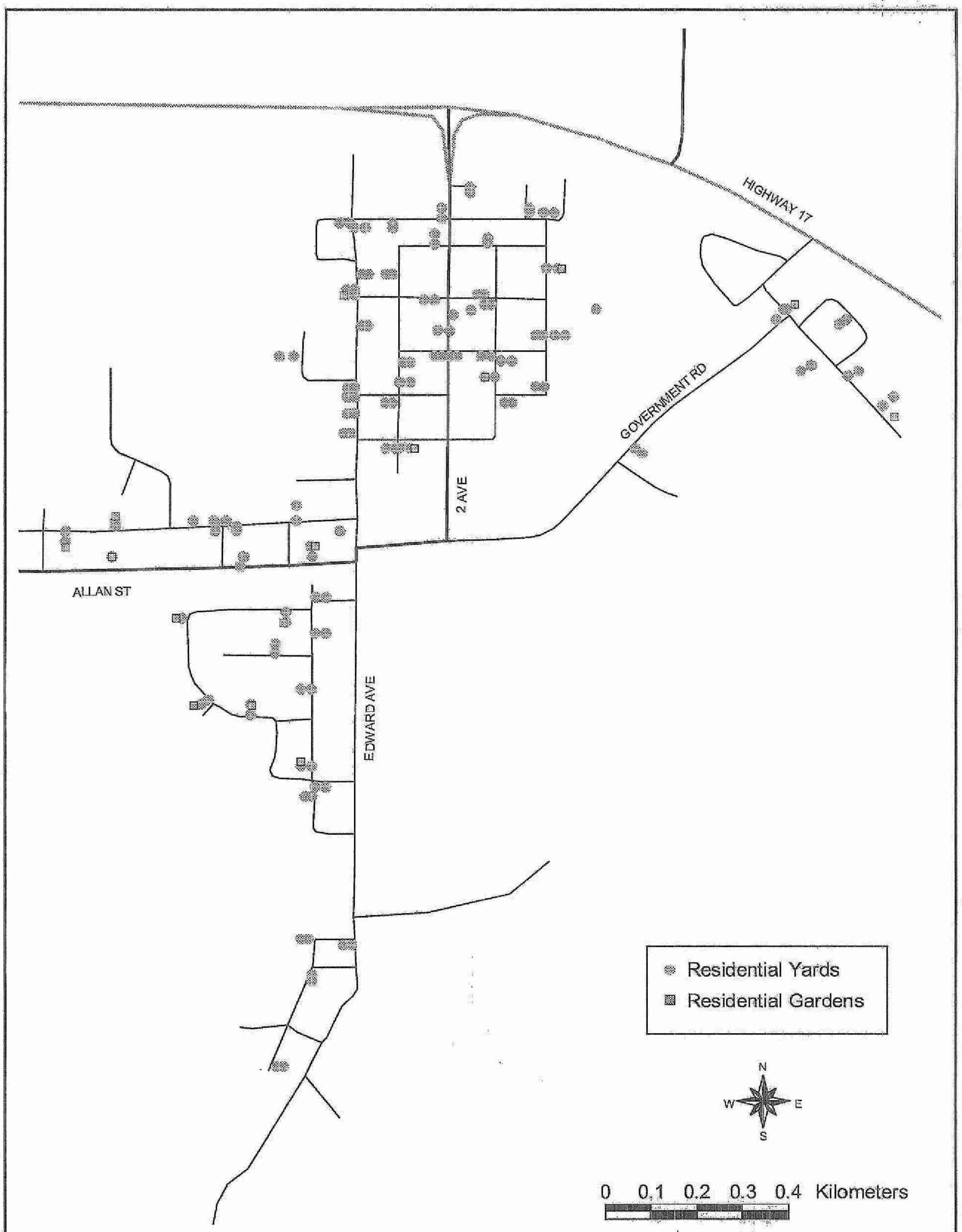
Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037965	Burton Ave.	Sudbury (Core)	front yard	17	499700	5149800	46.5017	-81.0034
5037966	Burton Ave.	Sudbury (Core)	side yard	17	500000	5150400	46.5075	-81.0001
5037967	Bessie Ave.	Sudbury (Core)	back yard	17	499600	5149900	46.5029	-81.0049
5037968	Selkirk St.	Sudbury (Core)	front yard	17	500100	5151000	46.5123	-80.9990
5037969	Snowdon Ave.	Sudbury (Core)	front yard	17	500100	5150400	46.5073	-80.9991
5037970	Bruce Ave.	Sudbury (Core)	back yard	17	500300	5150300	46.5063	-80.9961
5037971	Dunt St.	Sudbury (Core)	back yard	17	499300	5149900	46.5027	-81.0088
5037972	Roland St.	Sudbury (New)	back yard	17	503300	5152200	46.5235	-80.9571
5037973	Lamothe St.	Sudbury (New)	back yard	17	504000	5152400	46.5249	-80.9477
5037974	Woodbine Ave.	Sudbury (New)	back yard	17	503800	5152700	46.5278	-80.9504
5037975	Woodbine Ave.	Sudbury (New)	back yard	17	503400	5153000	46.5305	-80.9560
5037976	Agincrt. Ave.	Sudbury (New)	back yard	17	503400	5153300	46.5337	-80.9561
5037977	Shelley Dr.	Sudbury (New)	back yard	17	503900	5153300	46.5333	-80.9498
5037978	Lillian Blvd	Sudbury (New)	back yard	17	504200	5153200	46.5322	-80.9451
5037979	Hastings Crt	Sudbury (New)	back yard	17	503800	5153100	46.5313	-80.9508
5037980	Attlee Ave.	Sudbury (New)	back yard	17	503600	5152000	46.5214	-80.9525
5037981	Chapman St.	Sudbury (New)	back yard	17	503200	5152000	46.5214	-80.9576
5037982	Hawthorne Rd.	Sudbury (New)	back yard	17	504100	5151400	46.5158	-80.9459
5037983	Beatrice Crt.	Sudbury (New)	back yard	17	503600	5150700	46.5096	-80.9525
5037984	Gemmell St.	Sudbury (New)	front yard	17	504100	5151100	46.5131	-80.9471
5037985	Lakeview Dr.	Sudbury(core)	front yard	17	500000	5146800	46.4748	-81.0005
5037986	Mcnaughton St.	Sudbury Core	front yard	17	500700	5147600	46.4817	-80.9908
5037987	Mcnaughton St.	Sudbury (Core)	back yard	17	500900	5147600	46.4820	-80.9880
5037988	Ramsey Rd.	Sudbury (Core)	back yard	17	500900	5147700	46.4830	-80.9888
5037989	Edmund St.	Sudbury (Core)	front yard	17	500700	5147800	46.4842	-80.9910
5037990	O'connor St.	Sudbury (Core)	back yard	17	500300	5148100	46.4861	-80.9955
5037991	Riverside Dr.	Sudbury (Core)	front yard	17	500000	5147900	46.4850	-81.0005
5037992	Kingsmount Blvd.	Sudbury (Core)	back yard	17	500100	5147800	46.4838	-80.9993
5037993	Huron St.	Sudbury (Core)	back yard	17	498900	5149800	46.5014	-81.0142
5037994	Boland Ave.	Sudbury (Core)	front yard	17	500200	5147300	46.4795	-80.9971
5037995	Dunvegan Crt.	Sudbury (Core)	back yard	17	499800	5147200	46.4781	-81.0028
5037996	Prete St.	Sudbury (Core)	front yard	17	499500	5146900	46.4761	-81.0062
5037997	Hyland Dr.	Sudbury (Core)	front yard	17	500000	5147500	46.4814	-81.0000
5037998	Wembley Dr	Sudbury (Core)	back yard	17	500200	5147700	46.4832	-80.9977
5037999	St. Clair St.	Sudbury (Core)	back yard	17	498900	5147200	46.4782	-81.0142

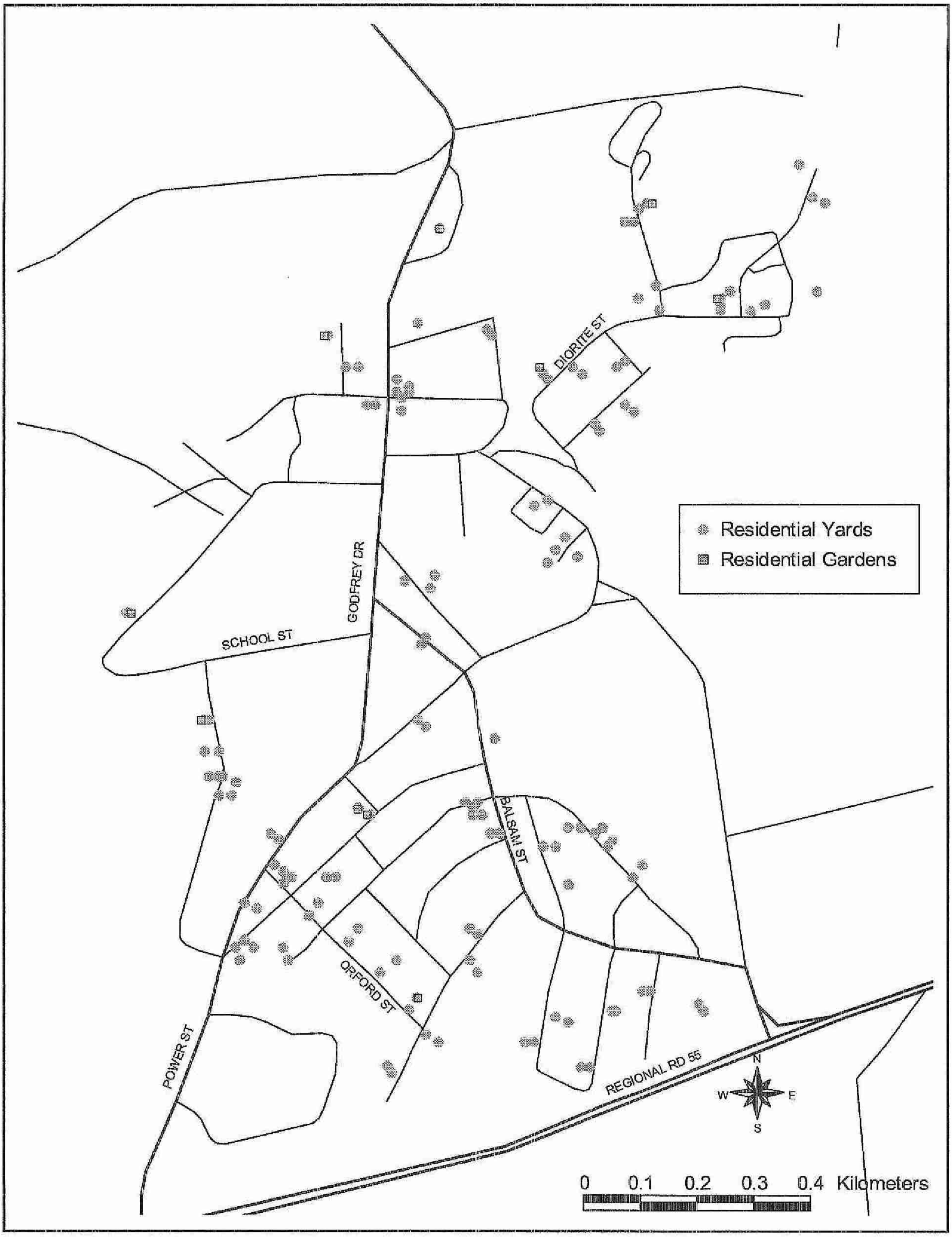


Map A4.1: Residential sampling locations in the City of Greater Sudbury

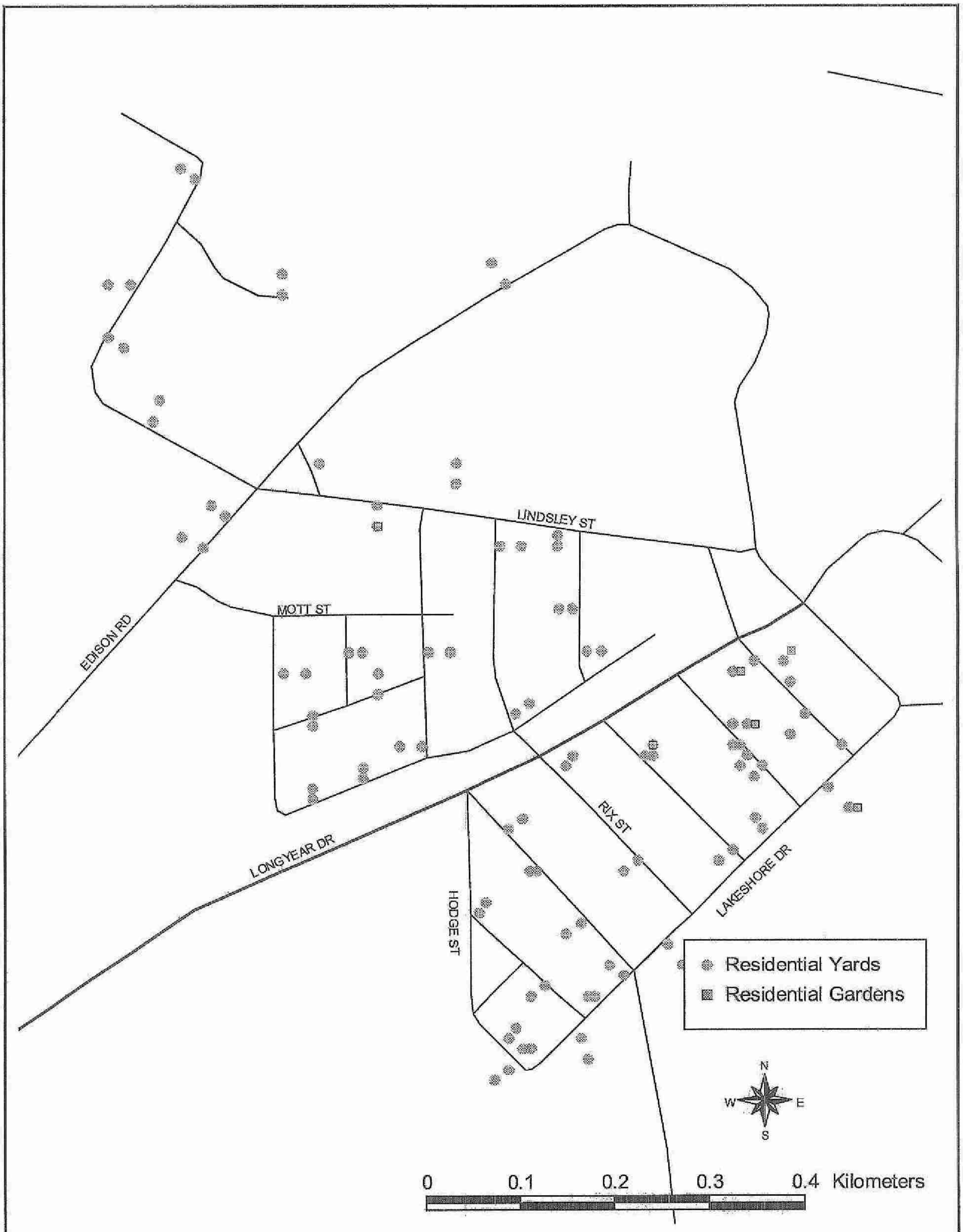
(positions have been rounded off to the nearest 100 metres)



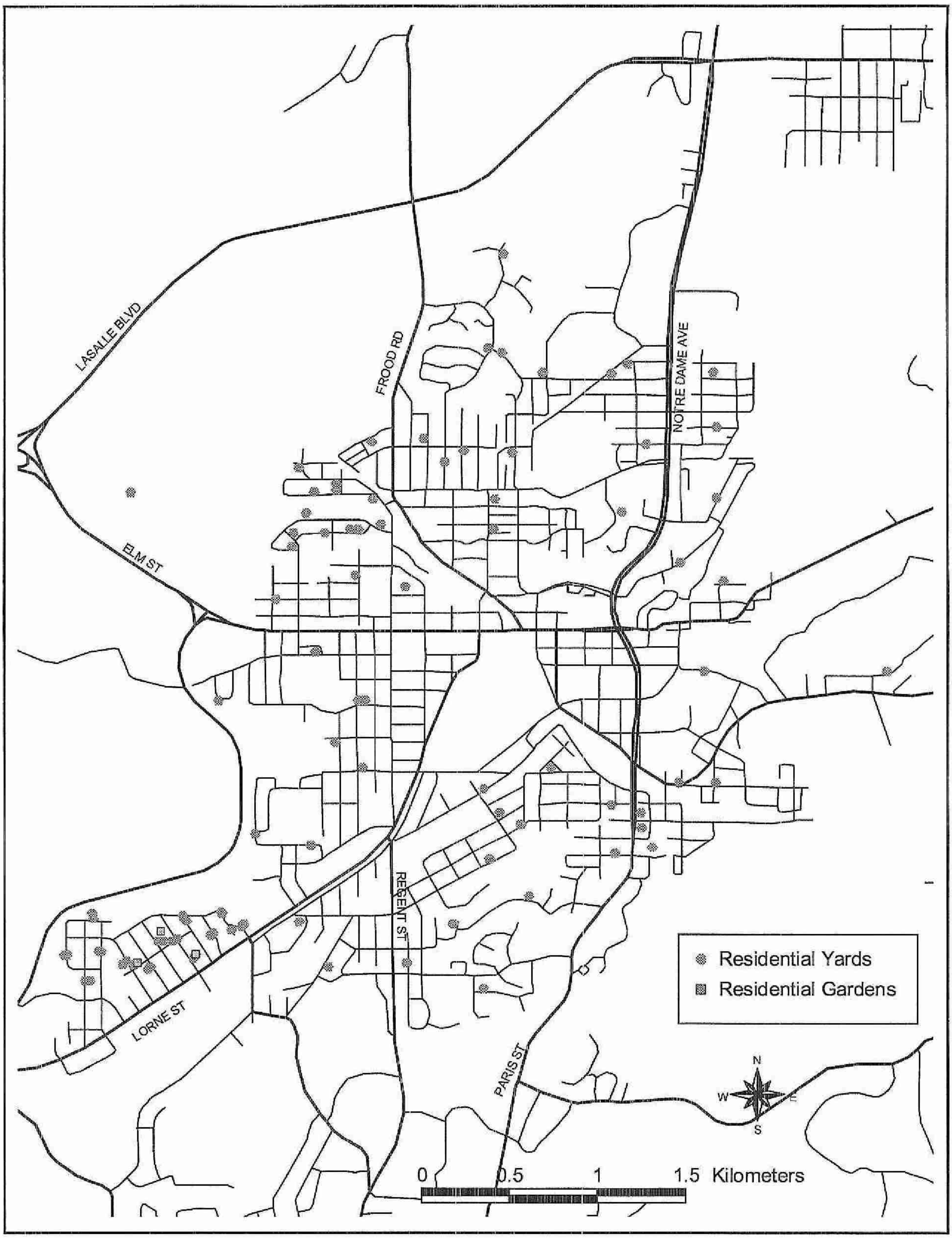
Map A4.2: Residential sampling locations in Coniston (positions have been rounded off to the nearest 100 metres)



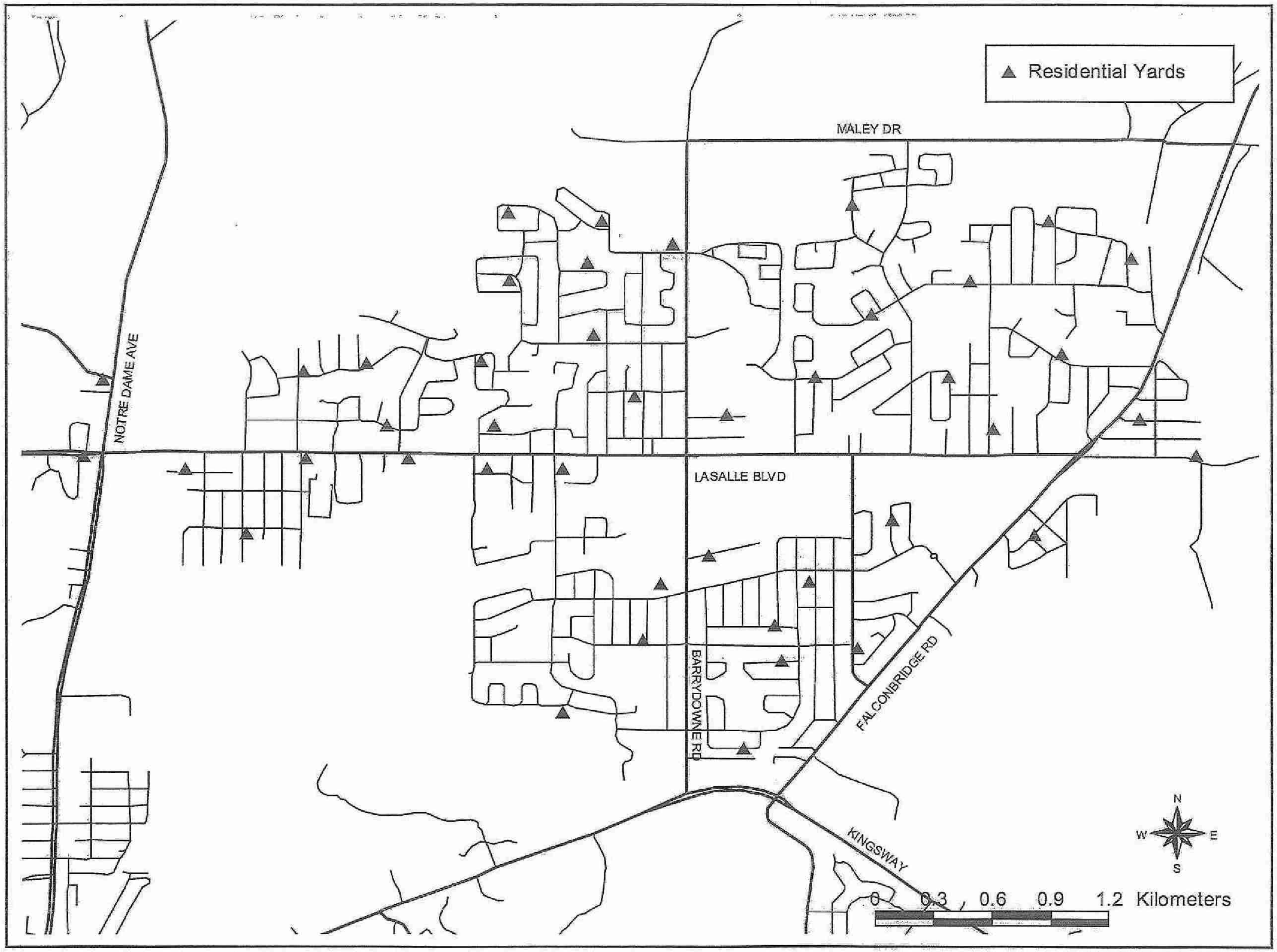
Map A4.3: Residential sampling locations in Copper Cliff (positions have been rounded off to the nearest 100 metres)



Map A4.4: Residential sampling locations in Falconbridge (positions have been rounded off to the nearest 100 metres)

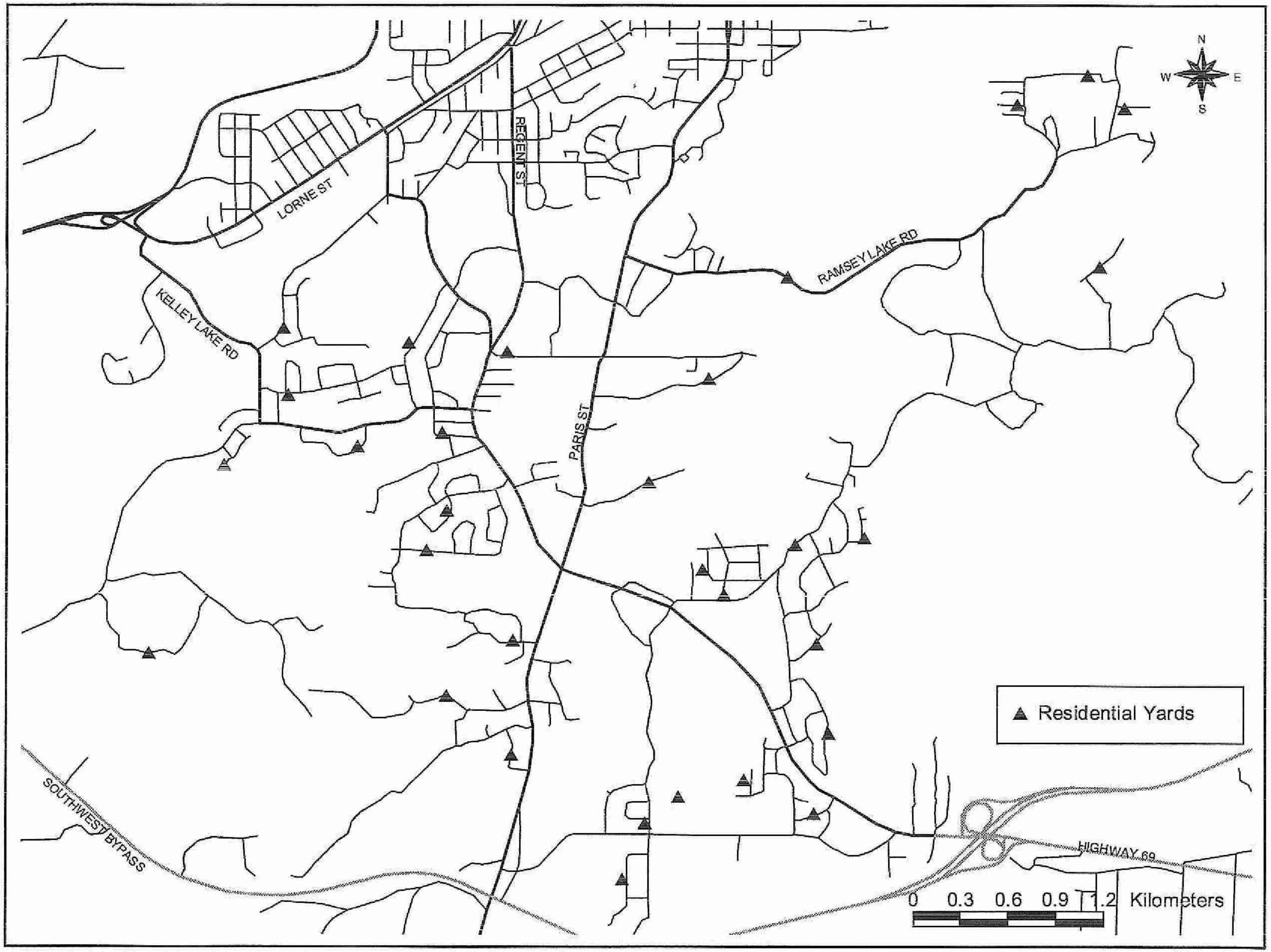


Map A4.5: Residential sampling locations in the Sudbury Core (positions have been rounded off to the nearest 100 metres)



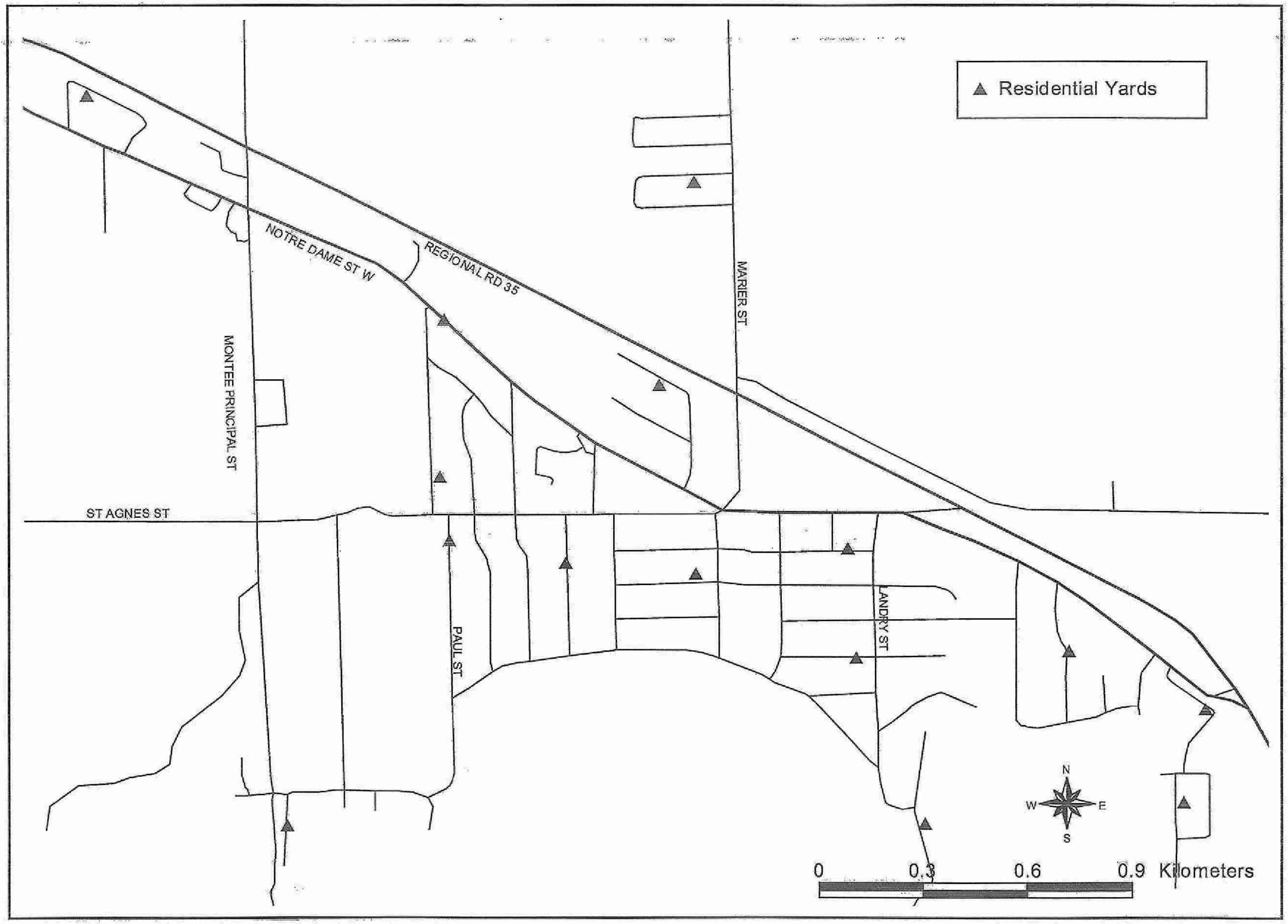
Map A4.6: Residential sampling locations in Sudbury New

(positions have been rounded off to the nearest 100 metres)



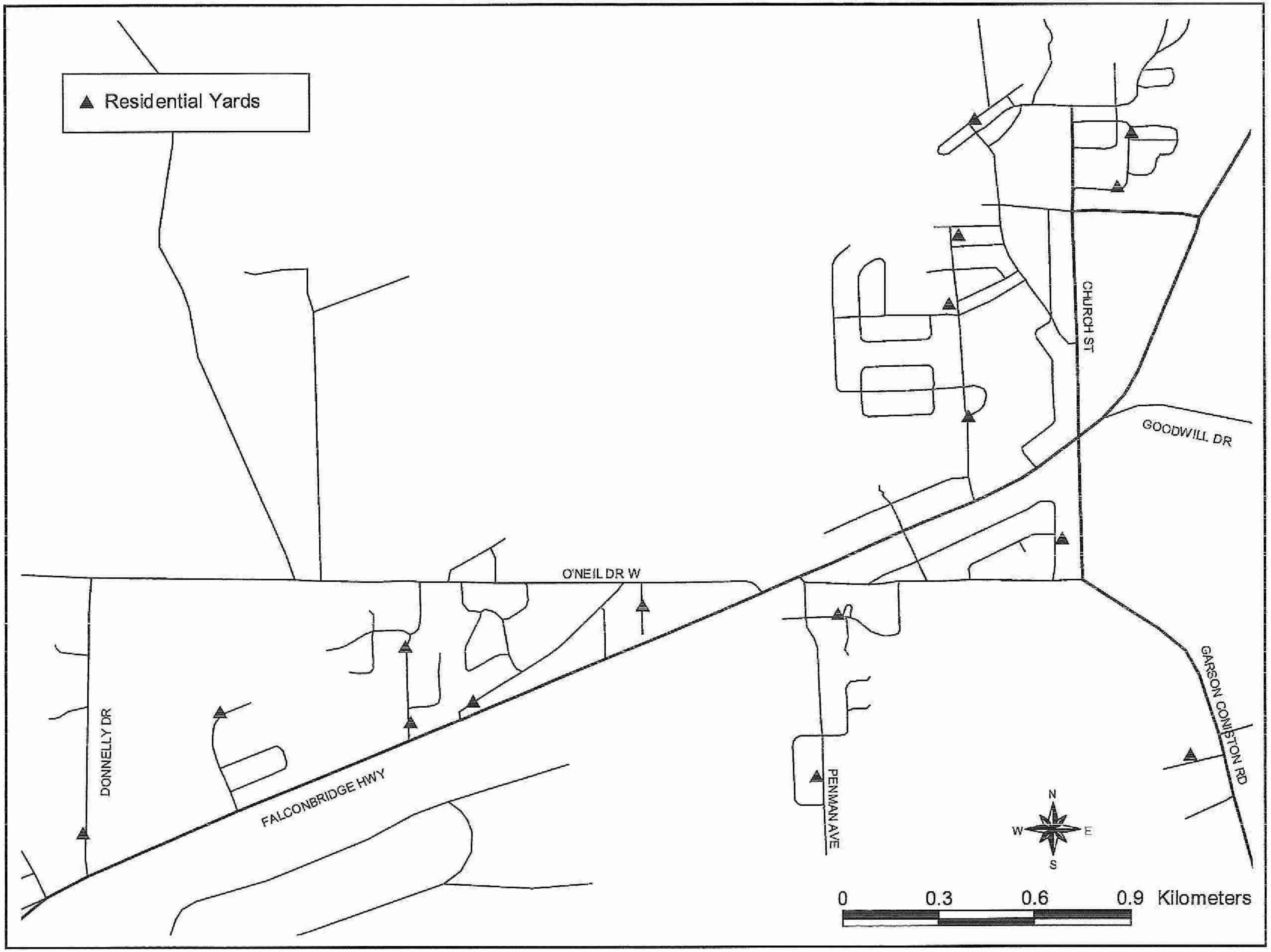
Map A4.7: Residential sampling locations in Sudbury South

(positions have been rounded off to the nearest 100 metres)



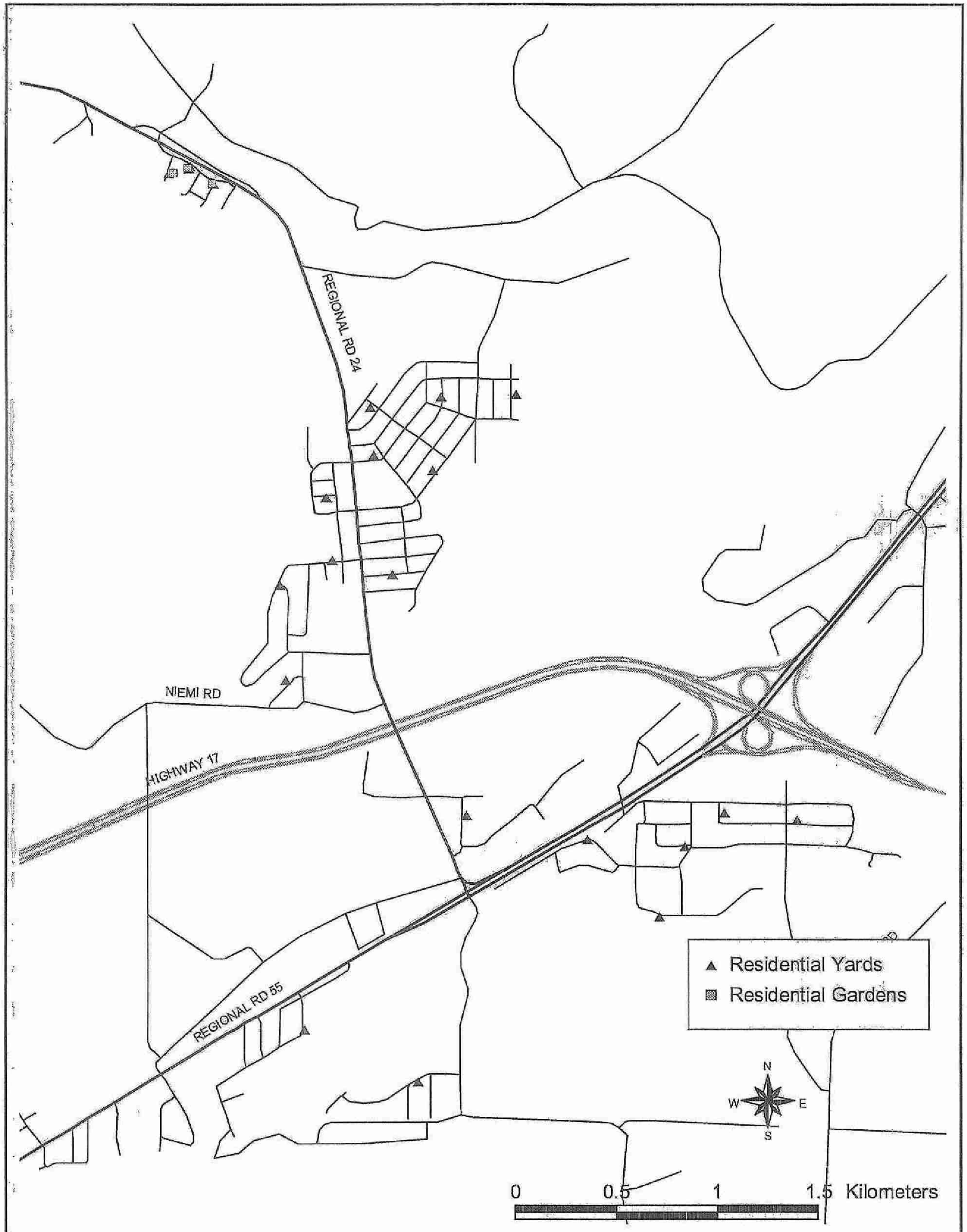
Map A4.8: Residential sampling locations in Azilda

(positions have been rounded off to the nearest 100 metres)

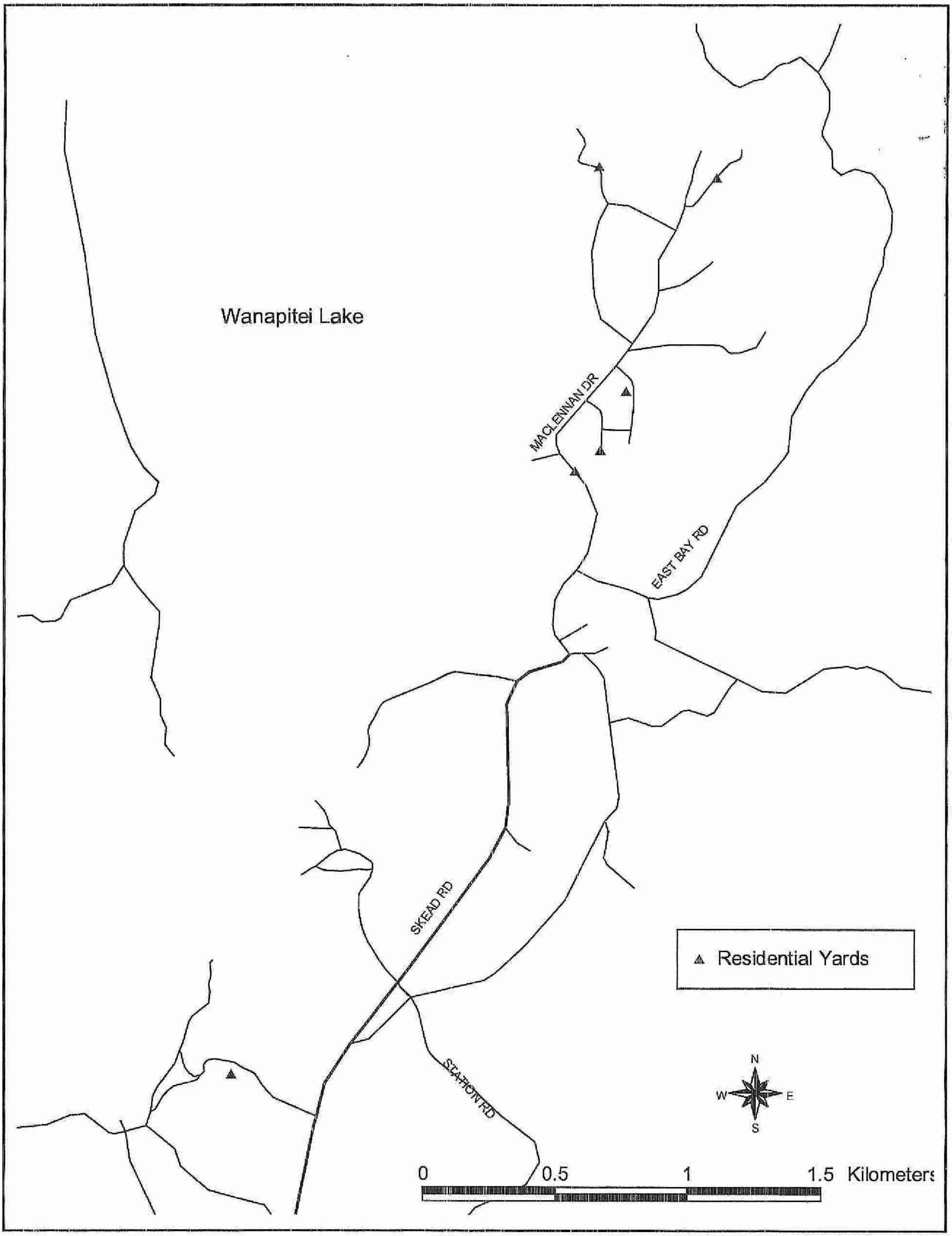


Map A4.9: Residential sampling locations in Garson

(positions have been rounded off to the nearest 100 metres)



Map A4.10: Residential sampling locations in Lively(positions have been rounded off to the nearest 100 metres)



Map A4.11: Residential sampling locations in Skead(positions have been rounded off to the nearest 100 metres)